

**Digital SNOWTAM  
- Pre-Operational Trial -**

*User's Guide & References Manual*

Version 1.4

**DOCUMENT CHANGE RECORD**

<b>Date</b>	<b>Description</b>	<b>Sections</b>
06/01/2010	v1.0: first public version	All
28/02/2010	V1.1: updated after installation of version 1.0.6 of the application	3.4, 3.4.1 and 4.4
28/02/2011	V1.2: updated after upgrade for EAD installation	All
12/02/2013	v1.3: updated after upgrade for Google Maps API v3	
14/11/2013	V1.4: removed all sections about how the application can be used for encoding SNOWTAM, which is not enabled for the EAD installation. Add/modified text related to the new functionality – MyAirports and direct decoding of SNOWTAM on Overview page; changes in the ICAO SNOWTAM format (no longer measured values for friction coefficient)	All

## CONTENTS

<b>1</b>	<b>DISCLAIMER</b>	5
<b>2</b>	<b>ACCESSING THE APPLICATION</b>	6
2.1	Technical requirements	6
2.2	Accessing the application	6
<b>3</b>	<b>DATA USER INTERFACE</b>	7
3.1	Introduction	7
3.2	Main screen layout	8
3.2.1	<i>Main menu</i>	8
3.2.2	<i>Main working area</i>	8
3.3	Airport Overview	8
3.3.1.1	Search criteria	9
3.3.1.2	Airport contamination status icons	11
3.3.1.3	Possible actions on the map:	11
3.3.2	<i>Quick Search</i>	13
3.4	Find airports	16
3.4.1	<i>Search criteria</i>	16
3.4.2	<i>Result list</i>	17
3.5	Airport Map Page	19
3.5.1	<i>Filters</i>	21
3.5.2	<i>Airport features</i>	21
3.5.2.1	Airport feature	22
3.5.2.2	Other feature types	23
3.5.3	<i>Airport Map</i>	24
3.5.4	<i>Visualization Options</i>	24
3.5.5	<i>Viewing SNOWTAM Text</i>	26
3.5.5.1	SNOWTAM Draft	27
3.5.5.2	SNOWTAM plain text	27
3.5.5.3	EAD – SNOWTAM	28
3.6	Viewing contaminations	29
3.7	Viewing Runway Contaminations	30
3.8	Viewing Taxiway Contaminations	30
3.9	Viewing Apron Contaminations	31
3.10	Viewing Aircraft Stand contaminations	31
3.11	Local Contaminations	32
<b>4</b>	<b>SYMBOLS AND GRAPHICAL REPRESENTATIONS</b>	33
4.1	Features	33
4.1.1	<i>Airport Reference Point</i>	33
4.1.2	<i>Runways</i>	34
4.1.3	<i>Taxiways</i>	36
4.1.4	<i>Aprons</i>	37
4.1.5	<i>Aircraft Stands</i>	37
4.2	Contaminations	38
4.2.1	<i>Contamination surface</i>	39
4.2.2	<i>Contamination icon</i>	40
4.2.2.1	Single and multiple layers	40
4.2.2.2	Type of contaminant	40
4.2.2.3	Friction coefficient	41

<b>5 WORKING WITH GOOGLE MAPS.....</b>	<b>42</b>
5.1 Moving the map .....	42
5.2 Zooming the map .....	43
5.3 Choosing a map type .....	43

## 1 Disclaimer

EUROCONTROL does not review, approve or take any obligation and/or responsibility with regard to the adequacy, reliability, accuracy, safety or conformance of the Digital SNOWTAM Trial Data with government standards or any government flight procedures.

The User shall inform EUROCONTROL (by contacting the trial helpdesk at the e-mail address [aim@eurocontrol.int](mailto:aim@eurocontrol.int)) of any inaccuracy or error in the Application or Data, which may affect the safety of air navigation.

The User **shall not**:

- (a) ***take any operational and/or safety-critical decision based on information displayed by the Application or on Data retrieved from the Trial.*** All operational decisions shall continue to be based on official SNOWTAM messages received from the official sources to which the User has access;
- (b) make available the information displayed by the Application to any third party not being part of the User's organisation;
- (c) disclose, sell, assign, lease or otherwise provide the Data to any other parties, or
- (d) commercially exploit or enable the commercial exploitation of the Application and/or the Data.

**Note:** Please take into account that because of the trial nature of the application this contains some features which are unnecessary for pilots but will be used for training purposes of data providers. These features are marked with a hyperlink in the text and will lead you to this note.

## 2 Accessing the application

The Digital SNOWTAM application is accessible via the Internet as a Web Application. You will therefore need a working Internet connection in order to use it. On the other hand, as far as the technical requirements are fulfilled, no other third party software or components need to be installed on your computer.

### 2.1 Technical requirements

Application was tested with Firefox 23.0 and Internet Explorer 9. Using an earlier version of these browsers might give unexpected results and it is therefore not recommended.

All application screens have been developed to accommodate a minimum resolution of 1024x768. Note, however, that the application also supports higher screen resolutions to allow you to take full advantage of the graphical capabilities of the maps.

Memory requirements will vary greatly depending on your browser and configuration.

### 2.2 Accessing the application

After login, the following image will be displayed, either in a separate browser window or a separate browser tab page (depending on the browser version). Click on the image to launch the Trial Application.



## 3 Data User Interface

### 3.1 Introduction

As Data User, you have access to the Data User Interface, which provides read access to textual and graphical representations of features and contaminations for all airports<sup>1</sup>, world-wide.

The typical usage flow of the Data User Interface is as follows:

1.	<b>Login</b> Enter your login name and password	
2.	<b>Airport Overview</b> An overview of the current SNOWTAM situation (Focus on Europe)	<b>Find airports</b> Find Airport Page Quick Search Feature
3.	<b>View airport contaminations</b> View the airport, its associated features and contaminations on a map	

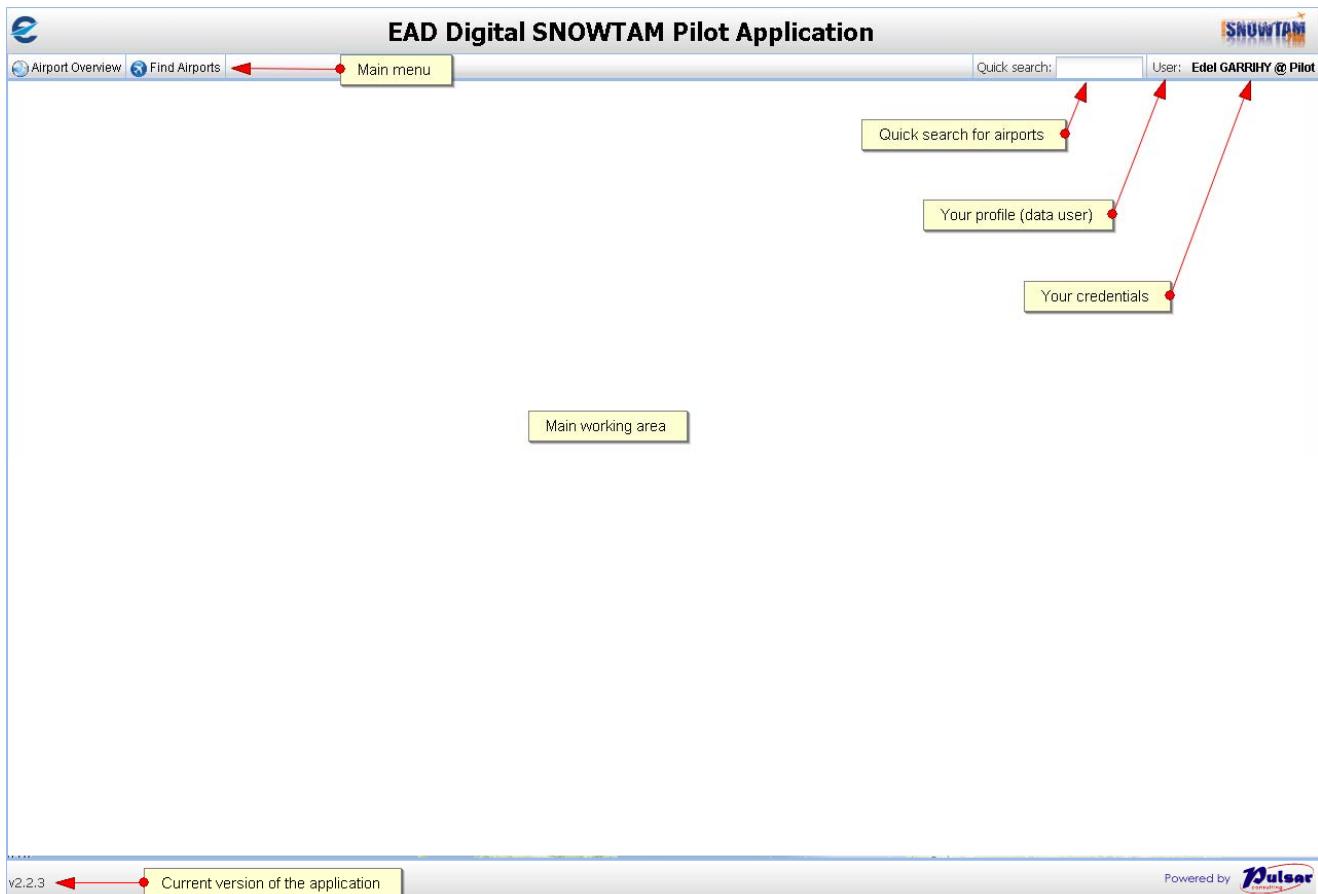
---

<sup>1</sup> More than 15000 airports are available through EAD export

## 3.2 Main screen layout

---

Application screens are divided in multiple sections:



### 3.2.1 Main menu

The Main menu is the heart of the navigation into the application. This is where you can choose the actions you want to perform within the application (Airport overview or Find Airports).

Each menu item can be clicked. This will load the requested page into the Main working area.

### 3.2.2 Main working area

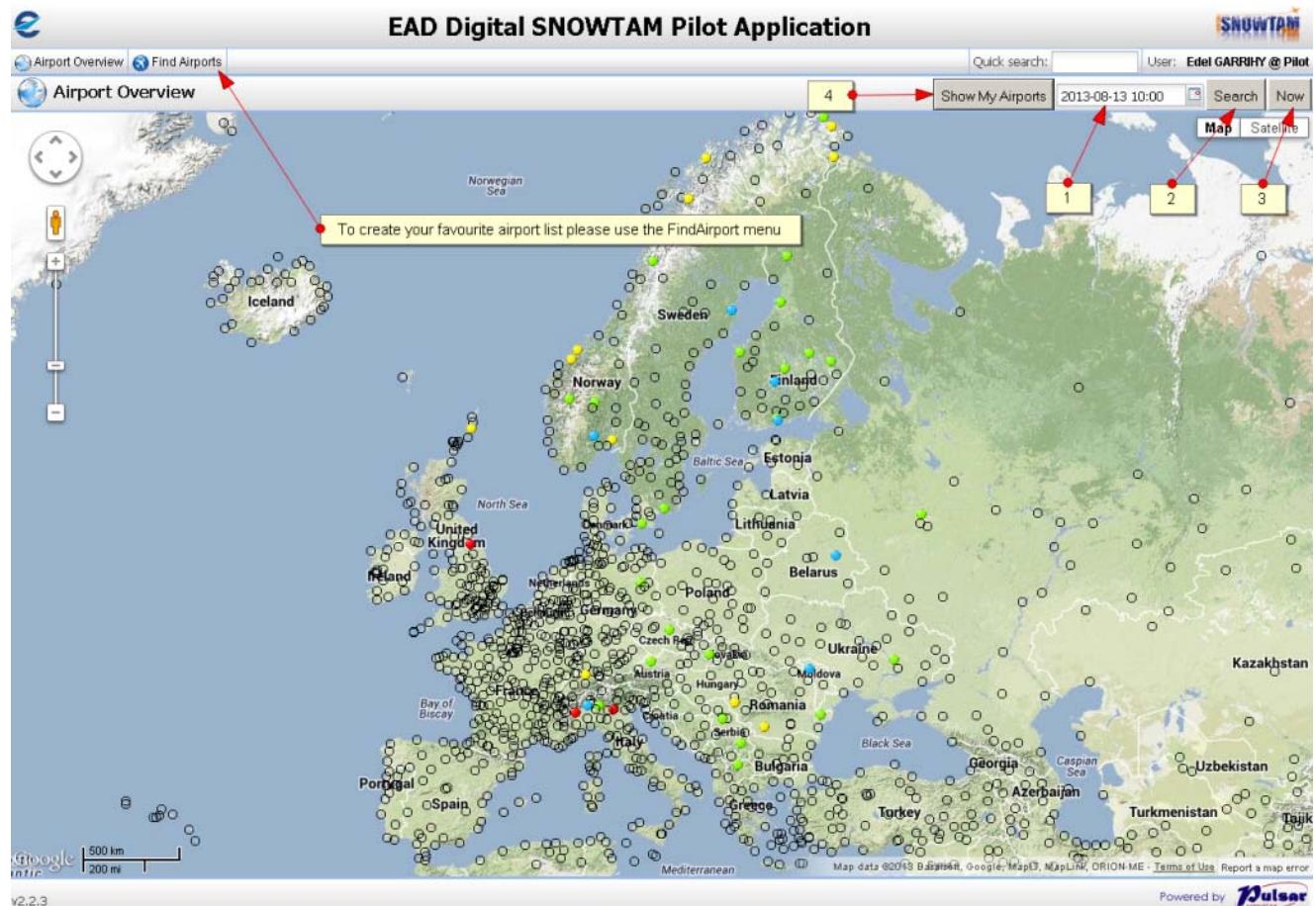
The main working area is where the application pages are loaded.

## 3.3 Airport Overview

---

The 'Airport Overview' screen shows a summary of the contamination status of a region. It is the page that opens first when entering the application. If a list of preferred airports (MyAirports) is already defined for your account, then only these airports will be shown. Otherwise, all airports having an IATA code in the application database will be shown. This selection criteria ('has IATA code') was chosen in order to de-clutter the image, as displaying all airports in the database could make the image very heavy, especially in the Western Europe area.

***It is important to remember that this page does not display by default the situation of all the airports available in the Pilot database!***



The view is initially centred on Europe.

The image will refresh automatically every 5 minutes under the condition that the mouse is not moving in the window.

The displayed airports are refreshed every time the map is moved or zoomed.

**Note:** some airports might seem to be missing in the bottom of the map, especially at low zoom levels. This is due to the fact that our geographic queries take the earth curvature into account, but Google Maps doesn't (coordinates are projected).

### 3.3.1 Search criteria

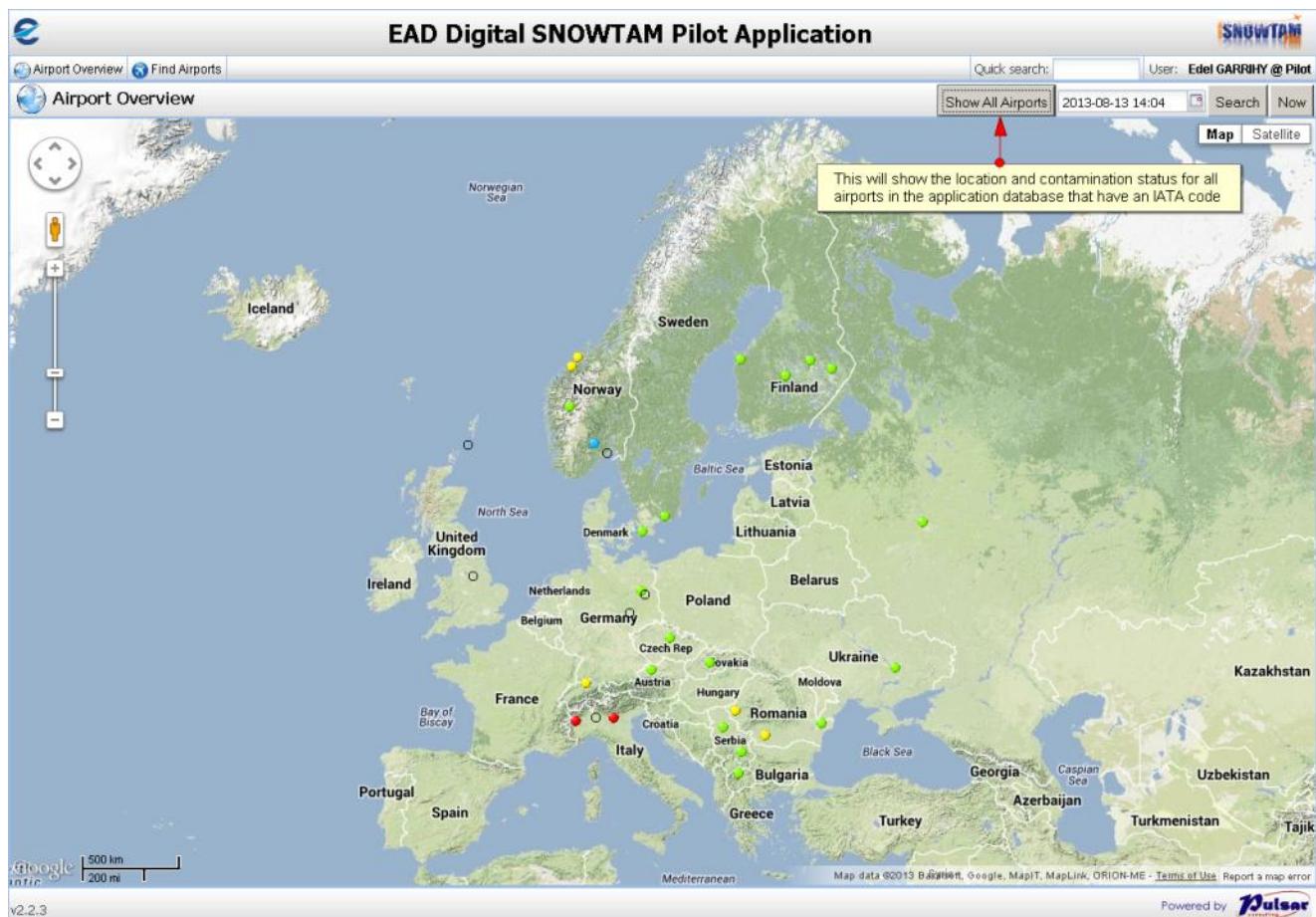
The 'Query time UTC' field (1) allows for historical searches.

Click on the 'Search' button (2) to do the search.

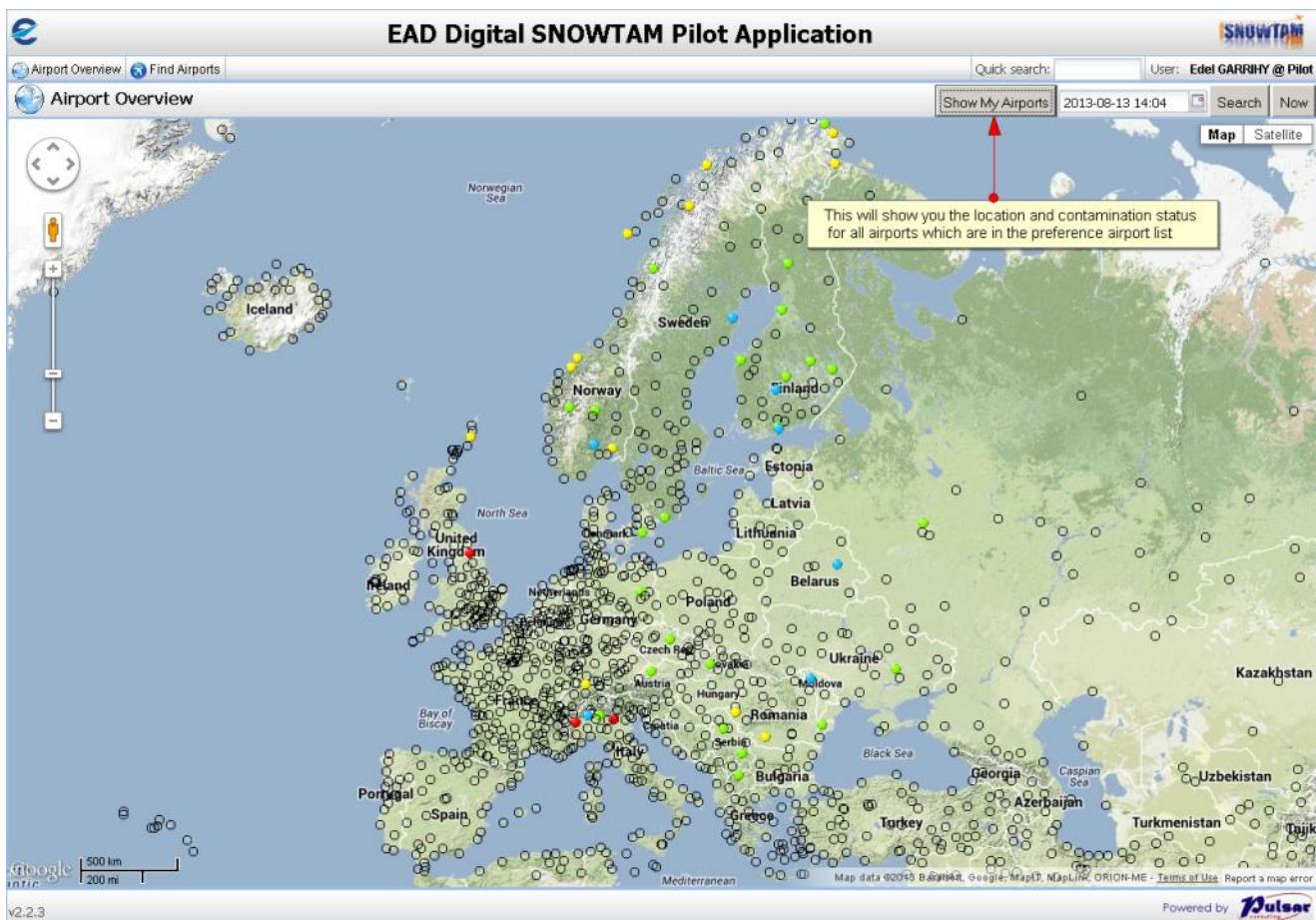
Clicking on the 'Now' button (3) will reset the query time by retrieving the current UTC time from server.

The button named 'Show My Airports' (4) will remain disabled as long as the user's preference list is empty, as explained in the tooltip (see previous chapter).

When the user's preference list contains at least 1 airport, then the 'Airport Overview' screen displays by default only the airports from this preference list and the button (4) is renamed into 'Show All Airports'.



Clicking on the 'Show All Airports' button will show all airports having an IATA code, as explained in the tooltip. And the button (4) will be renamed into 'Show My Airports' to allow coming back to the preference list.



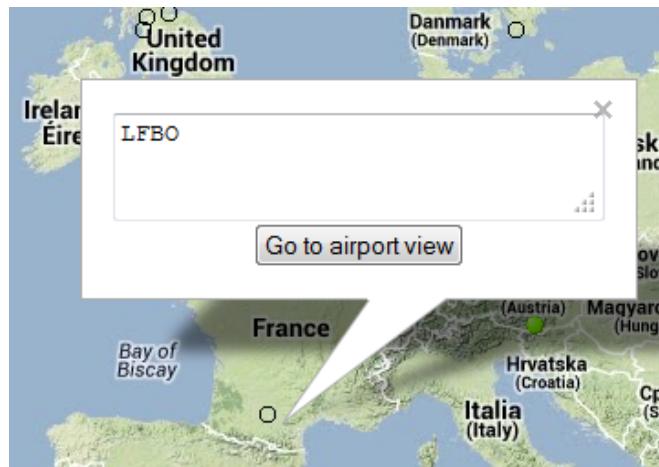
### 3.3.13.3.2 Airport contamination status icons

A contamination status icon is associated to every airport. The table below illustrates the possible icon colours and their respective meaning:

Icon	Meaning
○	No contamination information on the airport (no SNOWTAM received and successfully parsed by the application)
●	<p>There exists contamination information but all runway thirds are in good condition, which is defined as:</p> <ul style="list-style-type: none"> <li>▪ (whatever the contamination information) the friction coefficient is 5 ('GOOD')</li> <li>▪ or there is no information for that runway third</li> <li>▪ or the contamination is NIL and the friction coefficient is not specified</li> </ul>
●	<p>There is at least one runway third in 'poor' condition, which is defined as:</p> <ul style="list-style-type: none"> <li>▪ (whatever the contaminant) friction coefficient has value 1</li> </ul>
●	The latest SNOWTAM received for this airport could not be parsed because of syntax errors or other problems. The text of the SNOWTAM is available in the AirportOverview.
●	All other situations

### 3.3.13.3.3 Possible actions on the map:

- Change the map type using the map type selector.
- Zoom in, zoom out.
- Drag the map (move it using the mouse to show a different zone).
- “Hoover” the cursor over a bullet to see the corresponding airport designator.
- Click on an empty bullet to open the airport page of the corresponding airport/heliport:



- Click on a coloured bullet to view the details of a SNOWTAM coming from EAD.
- You can choose the plain text of contamination by clicking on the second tab.

**EAD Digital SNOWTAM Pilot Application**

**Airport Overview**

Quick search:  User: Edel GARRHY @ Pilot

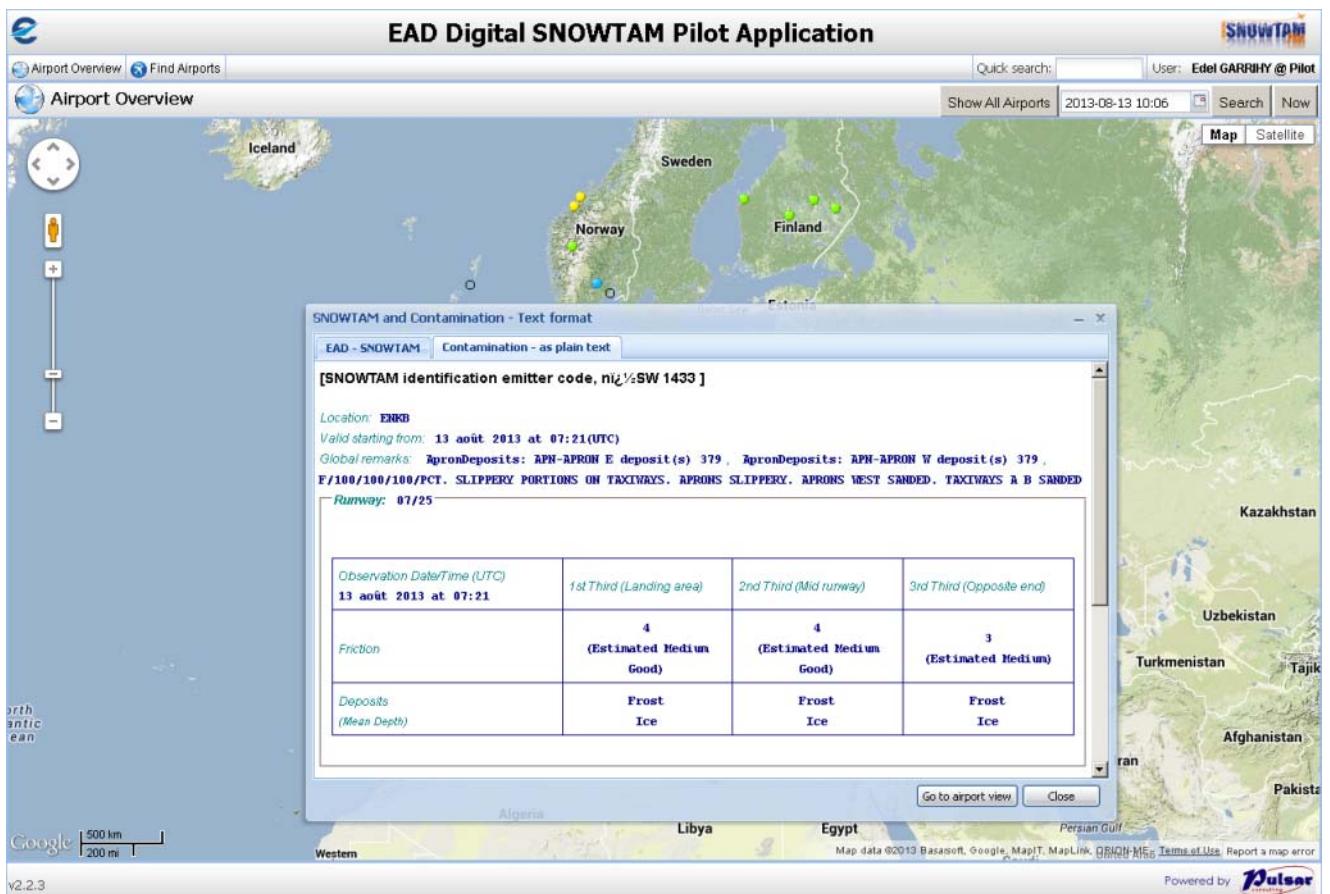
Show All Airports | 2013-08-13 10:06 |  |

**SNOWTAM and Contamination - Text format**

1433/2013  
A) ENKB  
B) 08130721 C) 07  
F) 37/37/37 H) 4/4/3  
N) A/37 B/37 C/37  
R) APRON E/379 APRON W/379  
T) F/100/100/100/PCT.  
SLIPPERY PORTIONS ON TAXIWAYS. APRONS SLIPPERY.  
APRONS WEST SANDED. TAXIWAYS A B SANDED.

Map data ©2013 Basisoft, Google, MapIT, MapLink, ORION-MSS. Terms of Use. Report a map error.

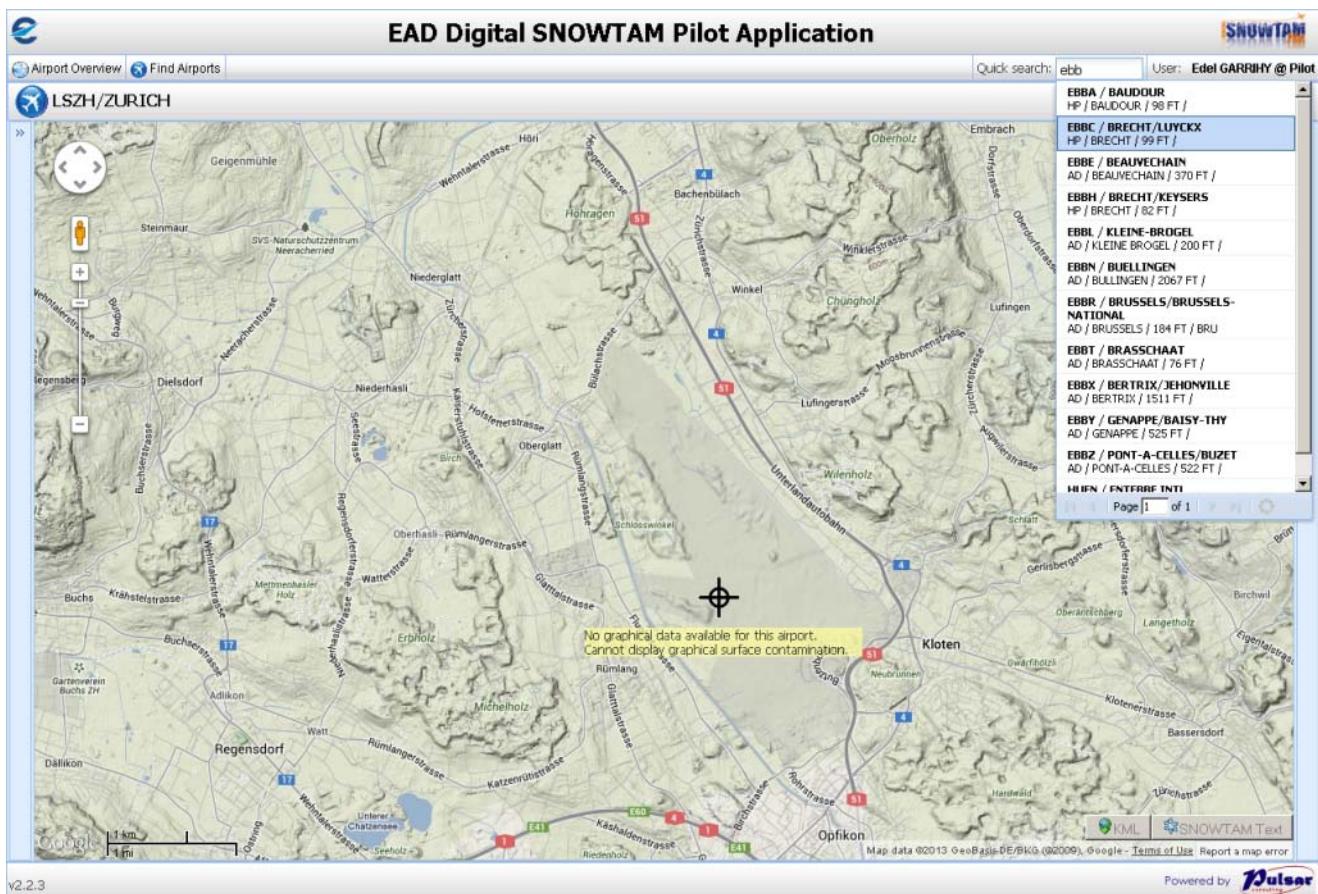
Powered by



### 3.3.23.3.4 Quick Search

The Quick Search feature is a convenient way to find airports very easily and quickly, based on ICAO/IATA designators and airport name. The selection of an airport will open the corresponding Airport Map page, which is used to display the contaminations.

Type any combination of characters to trigger the search (a minimum of 3 characters is required for the search to take place). The search results will contain all airports whose designators or name match the specified criterion:

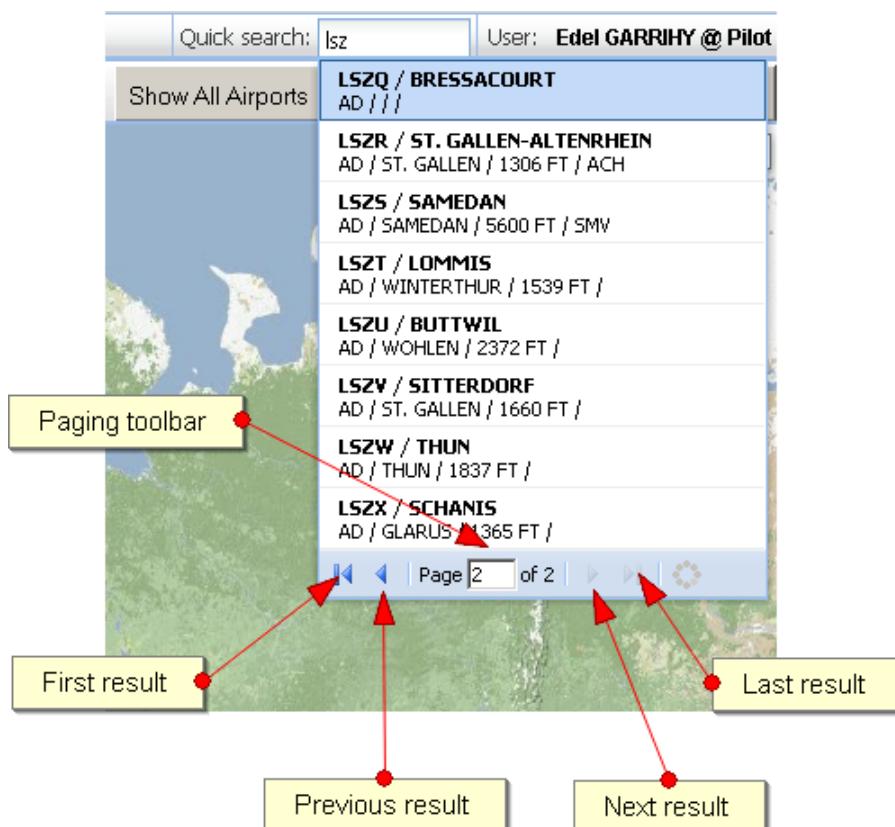


This search field also support the '\*' or '%' wildcard characters (replacing any group of letters).

Note that the Quick Search feature doesn't support temporal queries and that the Airport Map Page will always be opened with the current date and time.

Once the search results are displayed, you can navigate through the airport list with the keyboard (with up/down arrows) and press the RETURN key to select the airport. You can also use the mouse and click on the desired airport.

If the search results contain too many airports, they will be divided in multiples 'pages' that can be browsed with the help of the paging toolbar at the bottom of the list:



Example search results:

Criterion	Results
LS	No results (minimum 3 characters needed)
LS*	All airports where designator ICAO or designator IATA starts with 'LS' (no airport name starts with 'LS')

**LSZ** All airports where designator ICAO or designator IATA contains 'LSZ' (no airport name contains with 'LSZ')

**LSZH** **LSZH/Zurich (Zurich Airport, Switzerland)**

**BRUSSEL** All airports whose name contains 'BRUSSEL' (as ICAO and IATA designators have a max length of 4 characters, they will never match any criterion with more than 4 characters so, in that case, only the airport name is taken into account.)

'BRUSSEL' will match the following airports:

- **CPD4 / BRUSSELS (ARMSTRONG FIELD)**
- **EBBR / BRUSSELS/BRUSSELS-NATIONAL**
- **EBUB / BRUSSELS/ULB**
- **EBUC / BRUSSELS/UCL**
- **K4IL7 / BRUSSELS**

## 3.4 Find airports

The ‘Find airports’ screen, always accessible through the ‘Find Airports’ menu item, allows you to find specific airports and show if a SNOWTAM is active for each retrieved airport at ‘query time’.

Find airport page for data users

### 3.4.1 Search criteria

Search for airports is allowed by:

- ICAO designator (1)
- Airport name (2)
- IATA designator (3)

All those search criteria accept the ‘\*’ and ‘%’ wildcard characters (which stand for ‘any group of character’) both at the beginning and/or at the end of the criterion. Both characters have the same meaning and can be used indifferently, depending on your preference.

Examples:

- ‘EB\*’ in ICAO field will find all airports whose designator ICAO starts with ‘EB’ (i.e. EBBR, EBOS...)

- ‘\*STOCK\*’ in Name field will retrieve all airports whose name contains the word ‘STOCK’ (i.e. STOCKHOLM ARLANDA, STOCKTON METROPOLITAN, ...)

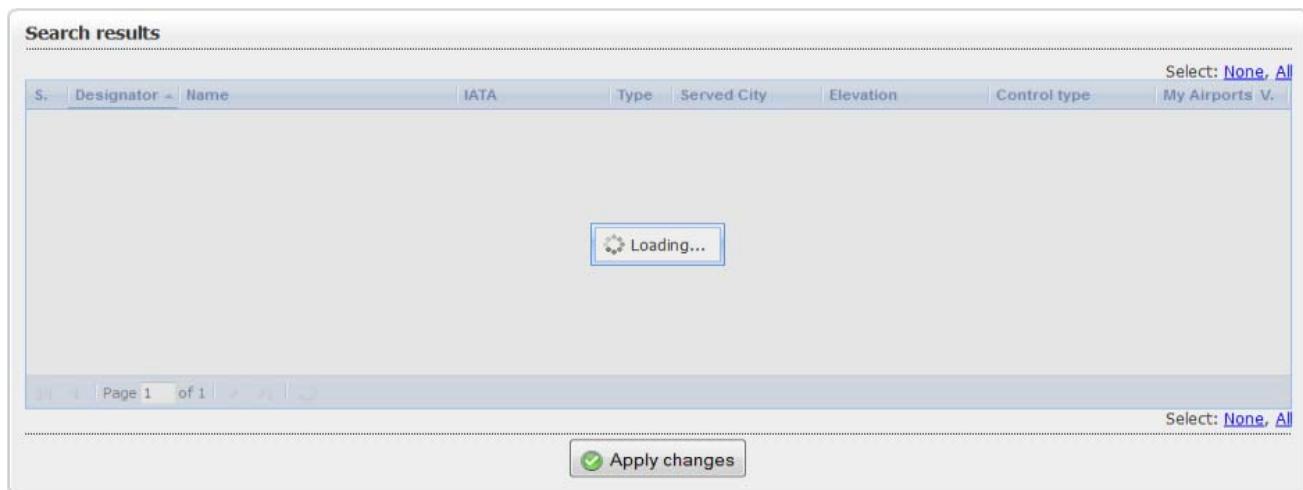
The ‘Query Time (UTC)’ field (4) allows for historical searches. This field is used by the application to retrieve SNOWTAM information. It will also be used when displaying the Airport Map Page of the selected airport. By default, the field contains the current UTC date/time.

Clicking on the ‘Now’ button (5) will reset the query time by retrieving the current UTC time from the server.

If ‘My airports’ (6) is selected, the result list will contain only airports from the user’s preference list. Click on the ‘Search’ button (7) or press the ‘RETURN’ key in any field to do the search.

### 3.4.2 Result list

While the server processes the request, the result grid becomes disabled and a loading mask is displayed:



The screenshot shows a user interface for searching airport data. At the top, there is a search bar with fields for 'Designator', 'Name', 'IATA', 'Type', 'Served City', 'Elevation', 'Control type', and a 'Select' dropdown set to 'None, All'. Below the search bar is a large grid table with a single row visible, showing a 'Loading...' message in the center. At the bottom of the grid, there is a page navigation bar showing 'Page 1 of 1' and a 'Select' dropdown also set to 'None, All'. At the very bottom of the interface is a button labeled 'Apply changes' with a checkmark icon.

When the results are available, the grid becomes enabled again and the first row is selected / highlighted:

# EUROCONTROL

## Digital SNOWTAM Trial User's Manual v1.4

 Airport Overview
 Find Airports
Quick search: 
User: Edel GARRIHY @ Pilot

 Find Airports

Search criteria

ICAO:	Name:	IATA:	Query Time (UTC):	Now	<input type="checkbox"/> My airports	 Search
(wildcards: * or %)						

Search results 181 airports found

S.	Designator	Name	IATA	Type	Served City	Elevation	Control type	My Airports V.
1	ENBR	BERGEN/FLESLAND	BGO	AH	BERGEN	50.549 M		<input type="checkbox"/> 
2	<b>ENBS</b>	<b>BATSFJORD</b>	BJF	AD	BATSFJORD	149.259 M		<input type="checkbox"/> 
3	<b>ENBV</b>	<b>BERLEVAG</b>	BVG	AD	BERLEVAG	13.07 M		<input type="checkbox"/> 
4	ENCN	KRISTIANSAND/KJEVIK	KRS	AD	KRISTIANSAND	17.432 M		<input type="checkbox"/> 
5	ENDB	DOMBAS/BRUNSHAGEN		LS				<input type="checkbox"/> 
6	ENDH	DRAMMEN/SYKEHUSET BUSKERUD HF		LS				<input type="checkbox"/> 
7	ENDI	GEILO/DAGALI		LS				<input type="checkbox"/> 
8	ENDO	DOKKA/THOMLEVOLD		LS				<input type="checkbox"/> 

Select: [None](#) [All](#)

 Page 2 of 13 
Displaying airports 16 - 30 of 181
Select: [None](#) [All](#)

 [Apply changes](#)

v2.2.3

Powered by 

The result table contains the list of airports/heliports matching the search criteria.

A row displayed in bold with a bullet  in the first column means that the corresponding airport/heliport has a valid/active SNOWTAM at the Query Time.

A single-click on the plane icon  in the last column or double-click on a row will open the Airport Map Page for the corresponding airport.

The result grid also supports keyboard navigation so it is also possible to use the up/down arrow keys to navigate through the results and press the RETURN key to open the Airport Map Page of the highlighted airport/heliport.

**TIP:** if you know the airport designator, type it in the designator field, press the 'return' key, wait for the grid to load, press the 'return' key again. This will load the Airport Map Page for the corresponding airport, without using the mouse and without complicated handling. I.e.: 'EBBR', [Return], [Return].

If the query returns too many results, the list of airports/heliports will be paginated (split in multiple pages). Navigating through multiple result pages is possible with the help of the navigation toolbar at the bottom of the grid:

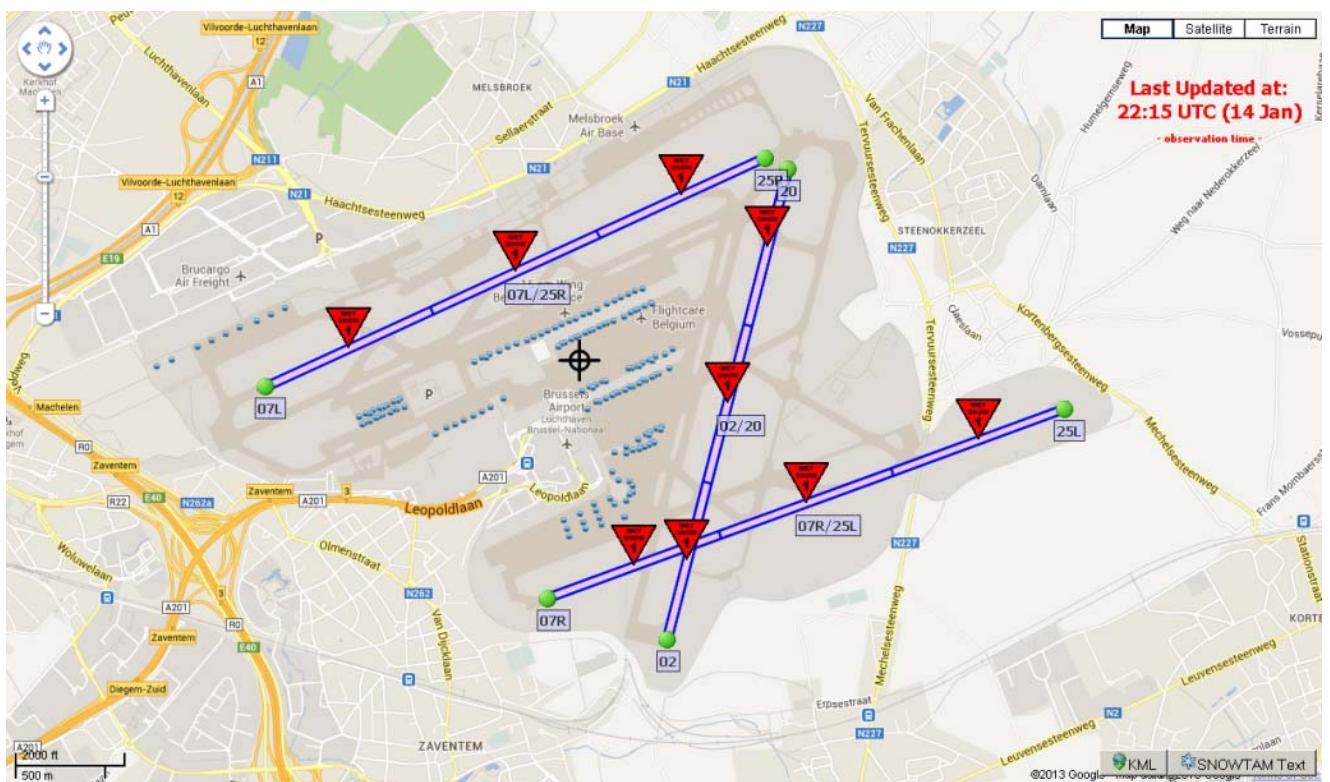
### 3.4.3 Managing “MyAirports” list

To add/remove an airport into/from the preference list, first search for it. When found, check/unchecked the corresponding box in the column named ‘My Airports’ and click on the button called ‘Apply changes’.

Pay attention that the result list of an airport search is paginated. For example, a search by airport Designator="LF%" might return hundreds of airports, which will be displayed as a number of Pages, each limited to 15 airports. There is a possibility (using the Select: None, All) to check/uncheck the MyAirport box for all the airports that are displayed on the page (maximum 15!). But you will have to repeat that check/uncheck and the Apply changes for each page!

### 3.5 Airport Map Page

The Airport Map is the second main screen of the application. It offers both textual and graphical view of airport features and contaminations.



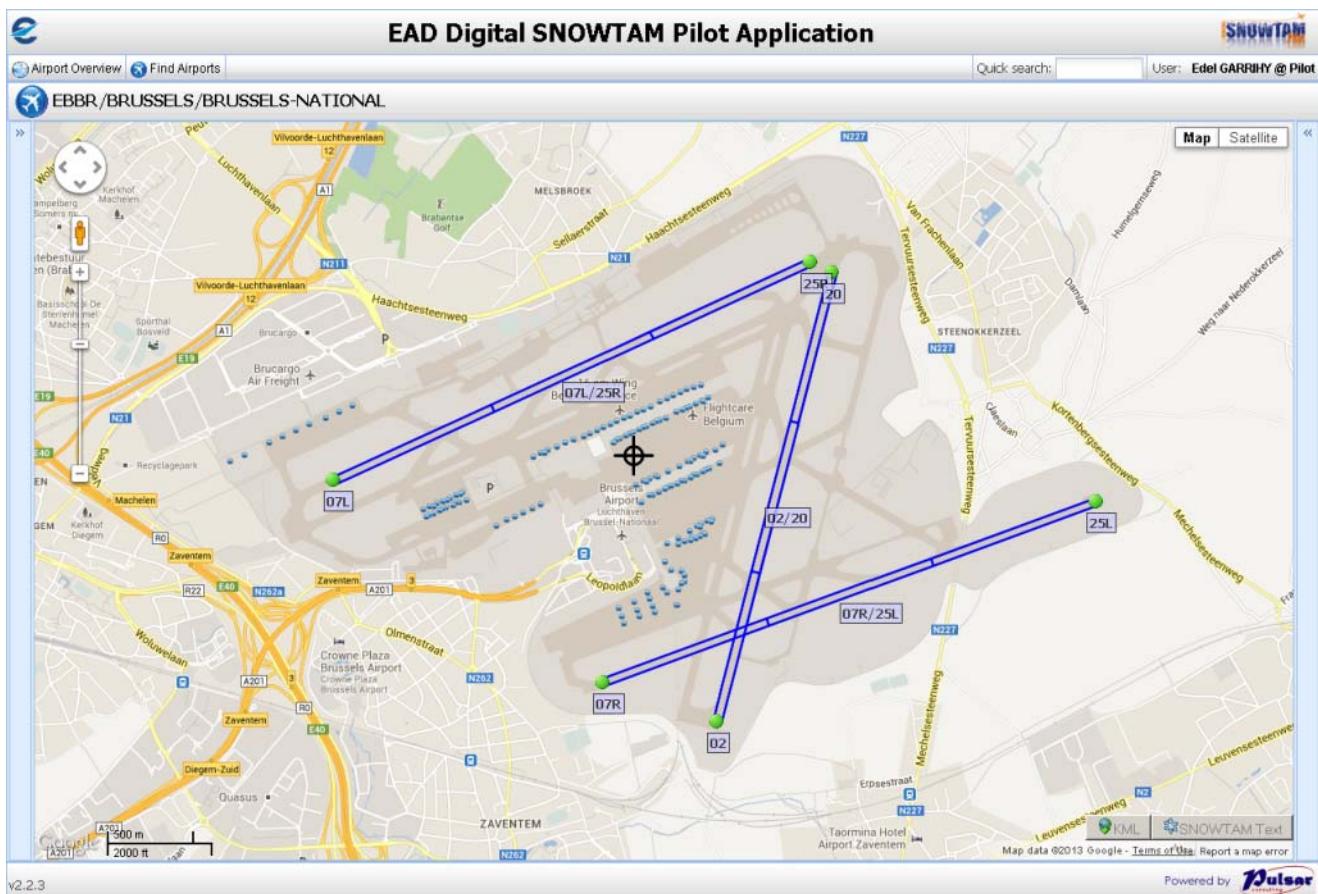
The screen is divided into four areas:

- Filters
- Airport features
- Airport map
- Visualisation options

The left and right columns (the 'filters/airport features' and 'visualization options' areas) can be almost completely hidden to give more space to the map. This may come in handy with smaller screen resolutions.



Once collapsed, the panels become only a narrow vertical bar:



Click on the bar itself to reopen the panels temporarily (the panel will collapse back as soon as the mouse cursor moves over the map) or click on the little arrows on top of the bars to expand the panels normally.

Note that each panel can be collapsed and/or expanded individually.

### 3.5.1 Filters

Filters allow you to reload the map with a different query time or a different dataset. The first time the page is loaded, the dataset is selected using the following criterion:

- [\*\*'Local'\*\* will be selected if the airport has local contaminations \(encoded by a local authority\)](#)
- 'EAD' will be selected otherwise

Users of the application shall always use the 'EAD' data set.

If you select a different dataset, this dataset will be used once you apply the filter and the page is reloaded.

By default the UTC Date/time uses the value selected in the 'Find airports' page or the current UTC date/time if you used the Quick Search feature or the Airport Overview page.

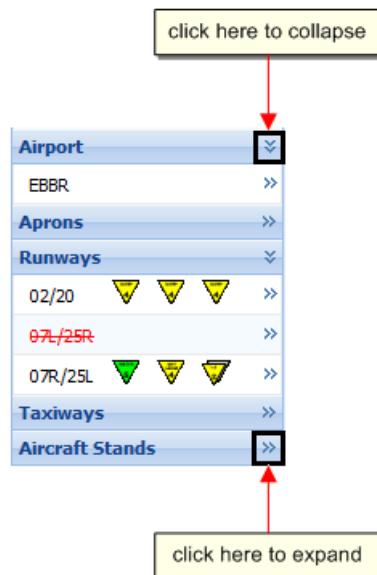
### 3.5.2 Airport features

The airport features area is a textual list of available features for the selected airport. Features are displayed by their designator / identification and are grouped by feature type:

Airport	
EBBR	»
Aprons	
Runways	
02/20	»
07L/25R	»
07R/25L	»
Taxiways	
Aircraft Stands	

Only the features available through EAD can be displayed here.

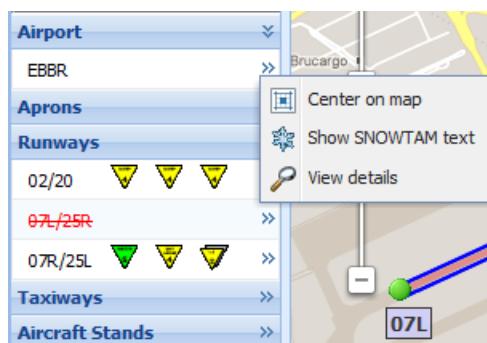
Feature groups (Airport, Runways, Aprons...) may be expanded or collapsed individually by clicking on the arrows on the right.



Click on the arrows on the right-hand side of feature designators to open a contextual menu which will allow you to interact with the corresponding feature (described below).

### 3.5.2.1 Airport feature

Click on the arrows icon on the right-hand side of the airport designator to open its contextual menu:



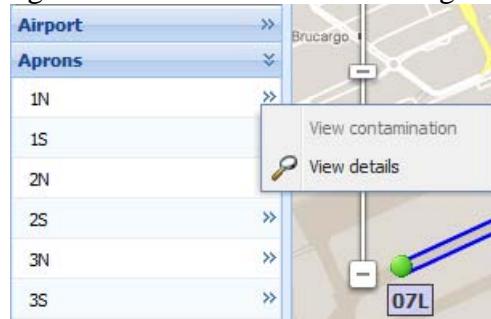
From the airport contextual menu you can:

- Centre the map on the airport reference point
- Show the current SNOWTAM text (if available)
- View the currently active baseline details about the airport (this will open in a new popup)

### 3.5.2.2 Other feature types

If the feature has a geometry that can be displayed, clicking on the designator will centre the map on the corresponding feature.

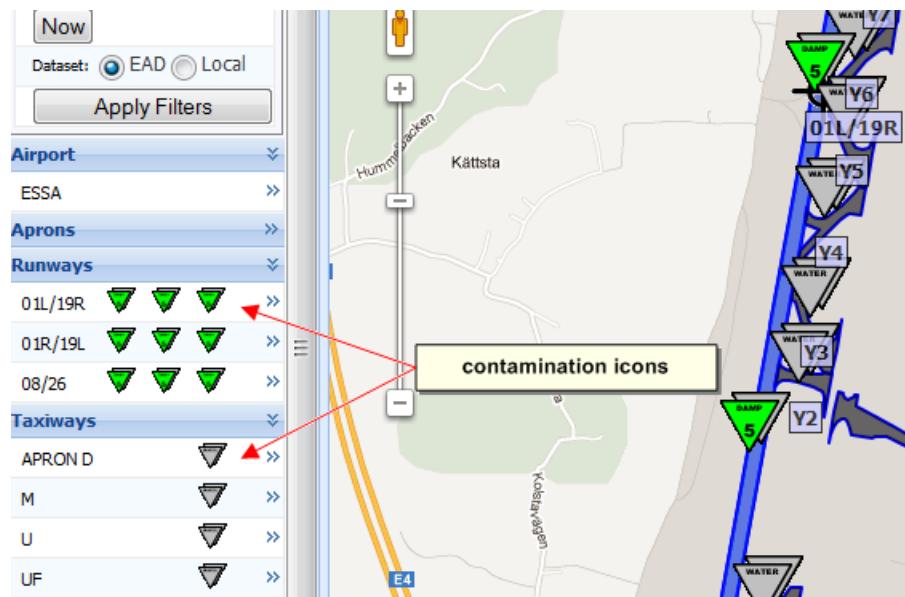
Click on the arrows icon on the right-hand side of the feature designator to open its contextual menu.



From the airport contextual menu you can:

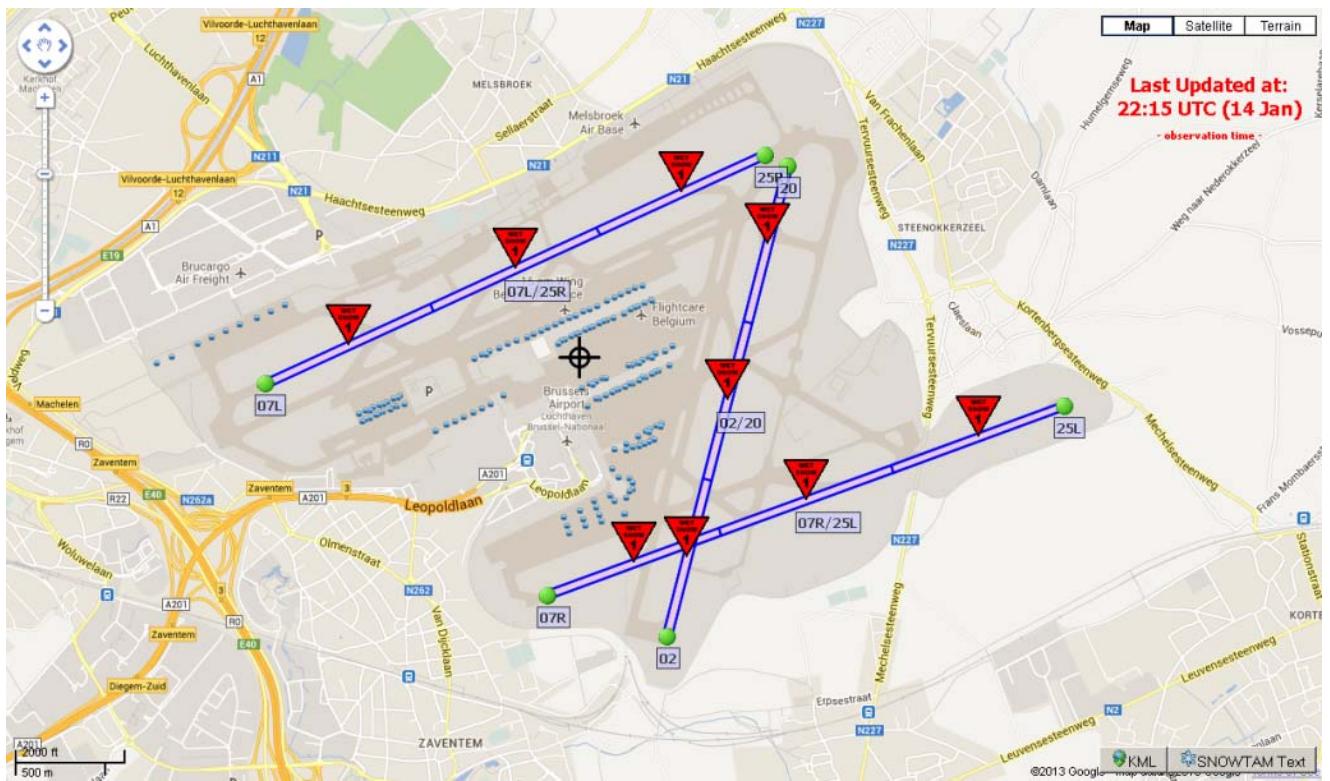
- Show the current contamination (if any)
- View the currently active baseline details about the feature (this will open in a new popup)

When contaminations affect a specific feature, the corresponding contamination icon is also visible nearby the feature designator:



### 3.5.3 Airport Map

The Airport Map is the central piece of the application. It allows graphical visualization of airport features and contaminations (when available).



'Last updated' message shows the time of last observation within the selected time frame.

For more details about how features and contaminations are displayed on the map, please refer to chapter 4 'Symbols and Graphical Representations'.

### 3.5.4 Visualization Options

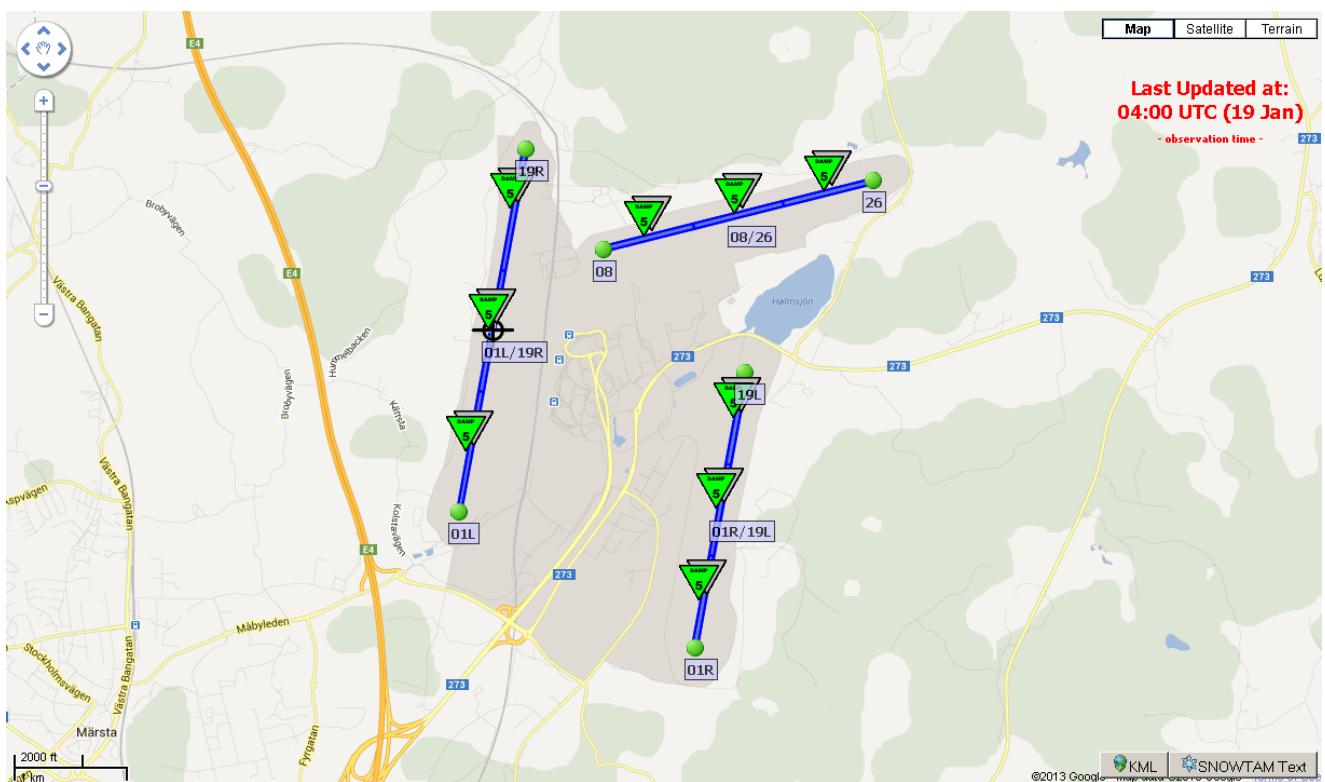
For some airports with a lot of feature geometries, the map can quickly become overloaded. The 'Visualisation Options' panel gives you full control over what is visible on the map.



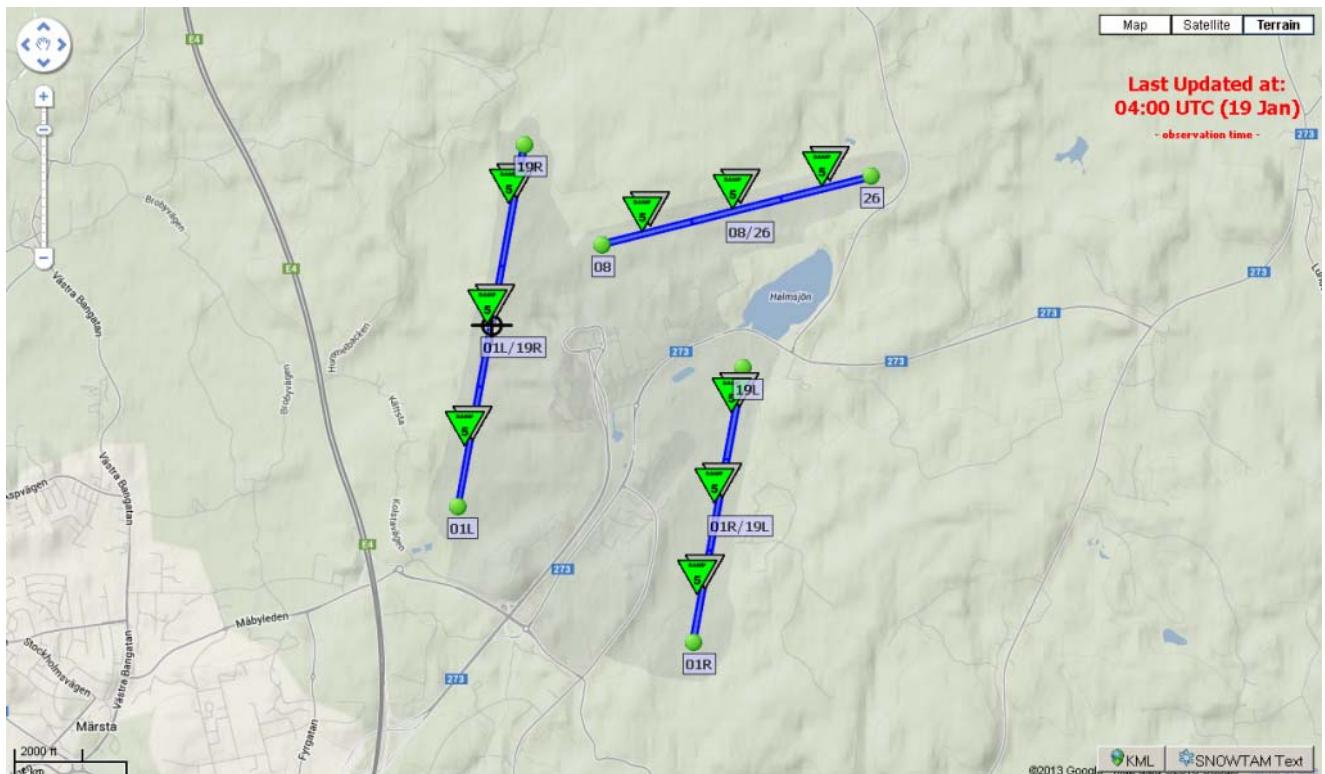
By checking/unchecking the boxes, you can show/hide the corresponding feature geometries and/or labels. The box nearby the feature type (Runways....) allows you to completely show/hide specific features in one click.



**Satellite view of airport map**



Map view of airport map



Terrain view of airport map

### 3.5.5 Viewing SNOWTAM Text

When a SNOWTAM message or contaminations are available for the selected airport, the 'SNOWTAM Text' button in the bottom-right corner of the map will be enabled.

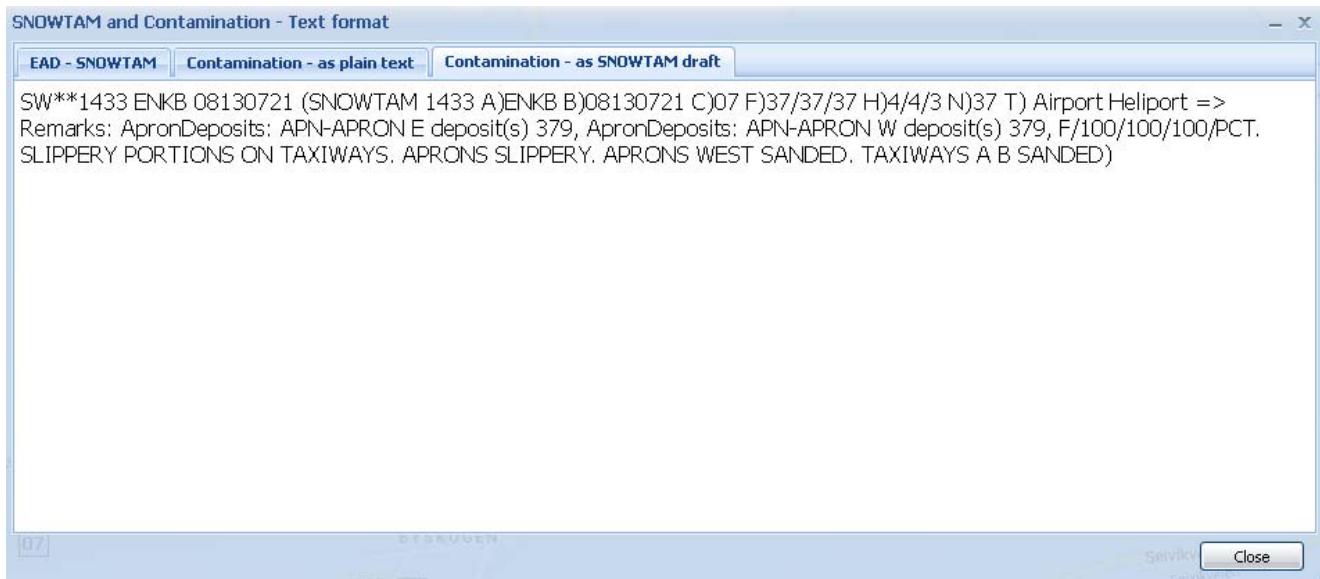
Click on this button to open a dialog showing

- The Original EAD SNOWTAM (as received from EAD) if applicable
- Contaminations as plain text
- [Contaminations as SNOWTAM draft \(as generated by the application\)](#)

Currently, airport wide contaminations can only be viewed in the “item T” and “global remarks” fields. This is also the case for information contained in an original SNOWTAM message that couldn’t be attached to a particular feature. This fact is emphasized in the screenshots below.

### 3.5.5.1 [SNOWTAM Draft](#)

The SNOWTAM Draft is generated by the application based on the contaminations provided by Data Providers and on the parsing and translation of official ICAO SNOWTAM messages coming from EAD. The SNOWTAM Draft is ICAO compliant.



### 3.5.5.2 [SNOWTAM plain text](#)

The “Plain Text SNOWTAM” translates the contamination into a formatted human readable plain text message.

**EUROCONTROL**  
**Digital SNOWTAM Trial User's Manual v1.4**

**SNOWTAM and Contamination - Text format**

**EAD - SNOWTAM** **Contamination - as plain text** **Contamination - as SNOWTAM draft**

[SNOWTAM identification emitter code, n*i*SW 1433 ]

**Location:** ENKB  
**Valid starting from:** 13 août 2013 at 07:21(UTC)  
**Global remarks:** ApronDeposits: APN-APRON E deposit(s) 379 , ApronDeposits: APN-APRON W deposit(s) 379 , F/100/100/100/PCT. SLIPPERY PORTIONS ON TAXIWAYS. APRONS SLIPPERY. APRONS WEST SANDED. TAXIWAYS A B SANDED

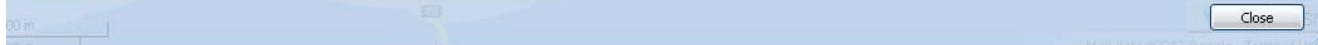
**Runway:** 07/25

<i>Observation Date/Time (UTC)</i> 13 août 2013 at 07:21	<i>1st Third (Landing area)</i>	<i>2nd Third (Mid runway)</i>	<i>3rd Third (Opposite end)</i>
<b>Friction</b>	4 (Estimated Medium Good)	4 (Estimated Medium Good)	3 (Estimated Medium)
<b>Deposits (Mean Depth)</b>	Frost Ice	Frost Ice	Frost Ice

**Taxway: B**  
**Deposits over taxiway (mean depth):** Frost, Ice

**Taxway: C**  
**Deposits over taxiway (mean depth):** Frost, Ice

**Taxway: A**  
**Deposits over taxiway (mean depth):** Frost, Ice

00 m  Close

**Note:** the fact that the apron was sanded was provided in item T) of the original SNOWTAM:

- A) ENKB
- B) 08130721 C) 07 F) 37/37/37 H) 4/4/3 N) A/37 B/37 C/37
- R) E/379 W/379
- T) F/100/100/100/PCT.

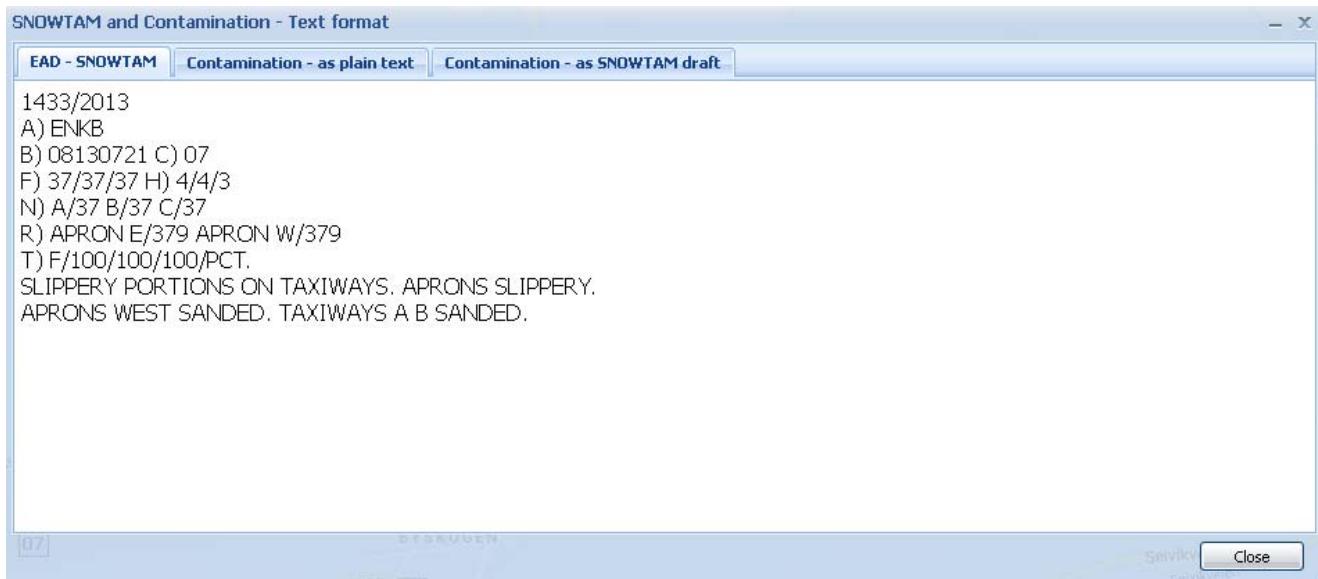
SLIPPERY PORTIONS ON TAXIWAYS. APRONS SLIPPERY.  
APRONS WEST SANDED. TAXIWAYS A B SANDED.

The information could therefore not be processed by the application and has been left unchanged and attached to the global remarks.

### 3.5.5.3 EAD – SNOWTAM

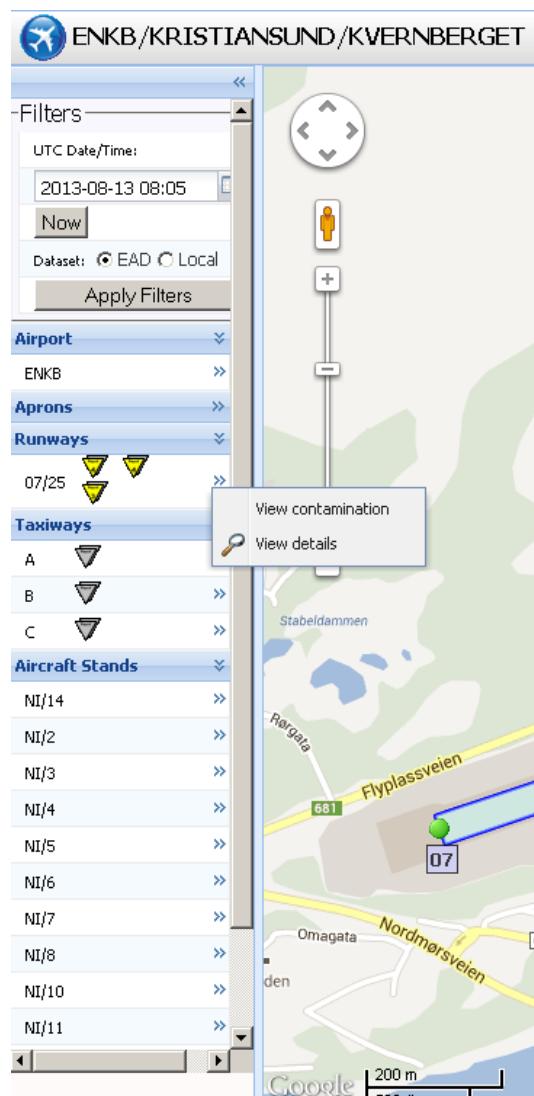
The ‘EAD – SNOWTAM’ tab contains the original SNOWTAM message as it was received from EAD, without any interpretation or correction, with the SNOWTAM number/year on the first line.

If the SNOWTAM was created within the application (so didn’t come from EAD), the tab will only contain the ‘NIL’ value.



### 3.6 Viewing contaminations

When contaminations are available, they are accessible through the textual feature list on the right, by clicking on the 'View contamination' in the corresponding menu:



This will open a new dialog containing detailed information about the conditions on the selected feature. The contamination information is read-only (it cannot be edited).

The dialogs differ depending on the specificities of each feature type and are described in the following chapters.

**Remember:** Currently, global information about the whole airport is only available through the 'SNOWTAM Text' feature. This includes the content item T (plain text remark).

### 3.7 Viewing Runway Contaminations

Detailed information about runway contaminations is always accessible through the feature list on the left, by clicking on the 'View contamination' in the corresponding menu:  
 Runway contaminations are always displayed by thirds.

**View surface contamination of Runway 07/25**

Contamination			
Whole Runway	Third 1	Third 2	Third 3
Deposits:	FROST ICE	FROST ICE	FROST ICE
Mean depth:	MM XX	MM XX	MM XX
Friction coefficient *:	4 (Est.: MEDIUM GOOD)	4 (Est.: MEDIUM GOOD)	3 (Est.: MEDIUM)
Friction device:	(same device for the three thirds)		

Cleared surface		Further clearance		Critical snow banks	
Cleared length:	M	Further clearance:	Is total? <input checked="" type="checkbox"/>	Present:	<input checked="" type="checkbox"/>
Cleared width:	M	Further clearance length:	M	Distance:	
Cleared Side:		Further clearance width:	M	Depth:	
Distance:		Further clearance time:		Side:	
From:	threshold			Obscured lights:	<input checked="" type="checkbox"/>
Remark:	07:21				

**Close**

### 3.8 Viewing Taxiway Contaminations

Detailed information about taxiway contaminations is always accessible through the feature list on the left, by clicking on the 'View contamination' in the corresponding menu:

**View surface contamination of Taxiway A**

Observation time:	07:21			
Deposits (upper layer first):	FROST			
	ICE			
Mean depth:	XX		XX	
Friction coefficient:				
Friction device:				
Obscured lights:				
Further clearance:	Is total? <input type="checkbox"/>			
Further clearance time:				
Cleared width:				
Cleared Side:				

**Critical snow banks**

Present: <input checked="" type="checkbox"/>	
Distance:	M
Depth:	CM
Side:	

Remark:

**Close**

### **3.9 Viewing Apron Contaminations**

Detailed information about apron contaminations is always accessible through the feature list on the left, by clicking on the 'View contamination' in the corresponding menu:

**View surface contamination of Apron P1**

Observation time:	17:24			
Deposits (upper layer first):	DRY SNOW			
Mean depth:	10		XX	
Friction coefficient:	1	(Est.: POOR)		
Friction device:				
Obscured lights:				
Further clearance:	Is total? <input type="checkbox"/>			
Further clearance time:				

**Critical snow banks**

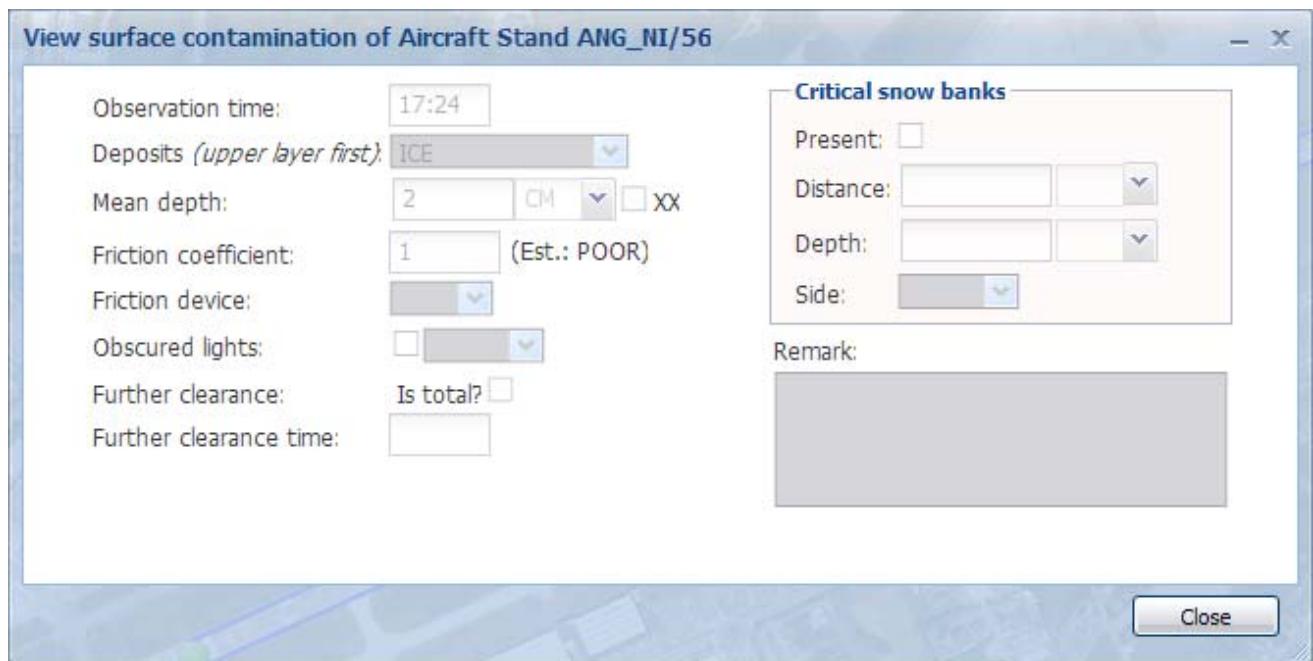
Present: <input type="checkbox"/>	
Distance:	
Depth:	
Side:	

Remark:

**Close**

### **3.10 Viewing Aircraft Stand contaminations**

Detailed information about aircraft stand contaminations is always accessible through the feature list on the left, by clicking on the 'View contamination' in the corresponding menu:



### **3.11 Local Contaminations**

In addition to EAD SNOWTAM messages, the application also supports local contaminations.

During the trial, local contaminations can be provided by local airport authorities and/or NOTAM offices. This will allow data providers to encode test data directly within the application, with the help of wizards and graphical editing capabilities.

Local contaminations can coexist with EAD contaminations, as they are both considered as completely separate data sets. In other words, local and EAD contaminations won't impact each other. This will allow, for example, using the application to encode and generate an ICAO SNOWTAM draft and comparing it with the official SNOWTAM issued by the same authority.

## 4 Symbols and Graphical Representations

Aeronautical experts have investigated the existence of civil, military and other industry conventions and standards that provide requirements or guidelines for the graphical representation of the surface contamination status.

### 4.1 Features

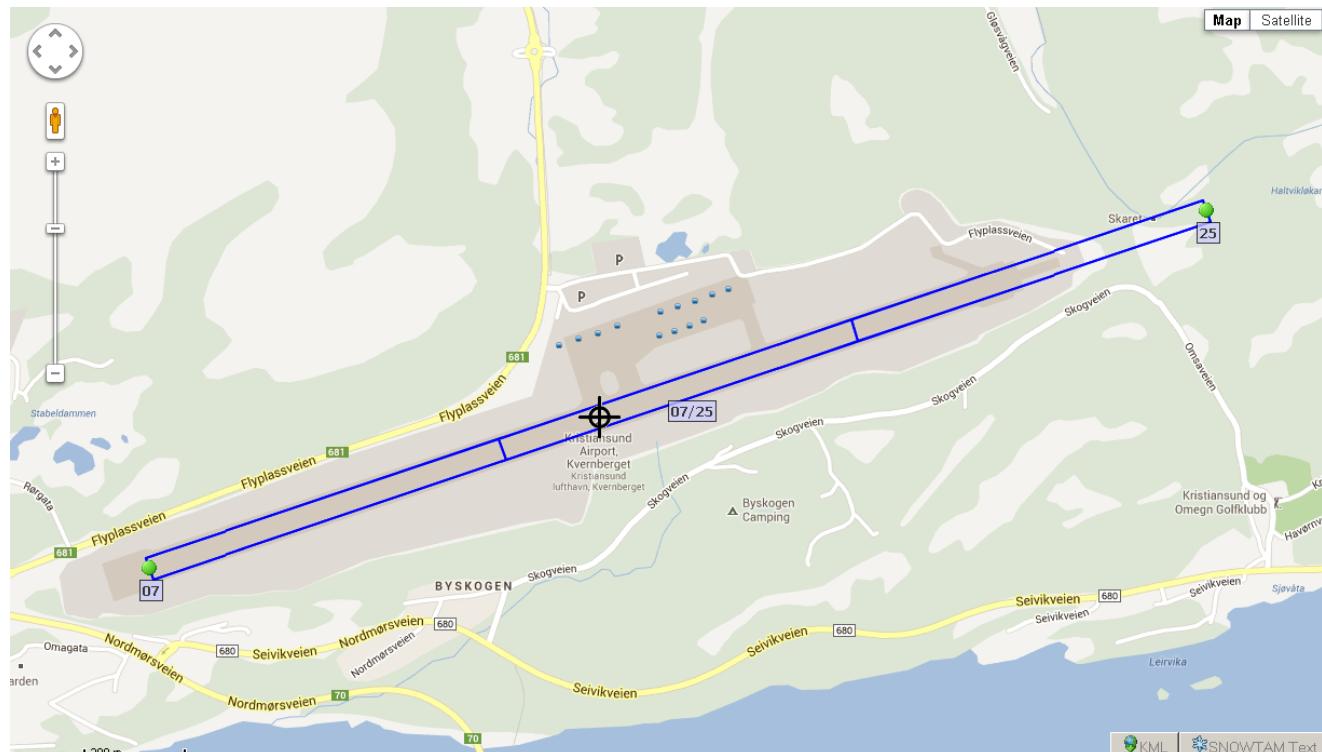
Features for which geometries are available are displayed graphically on a map. Both features represented by a surface and features represented by a point are supported.

Airport features represented by a surface are displayed using an outlined blue polygon (the shape is not filled). This is the case for runways, taxiways and aprons.

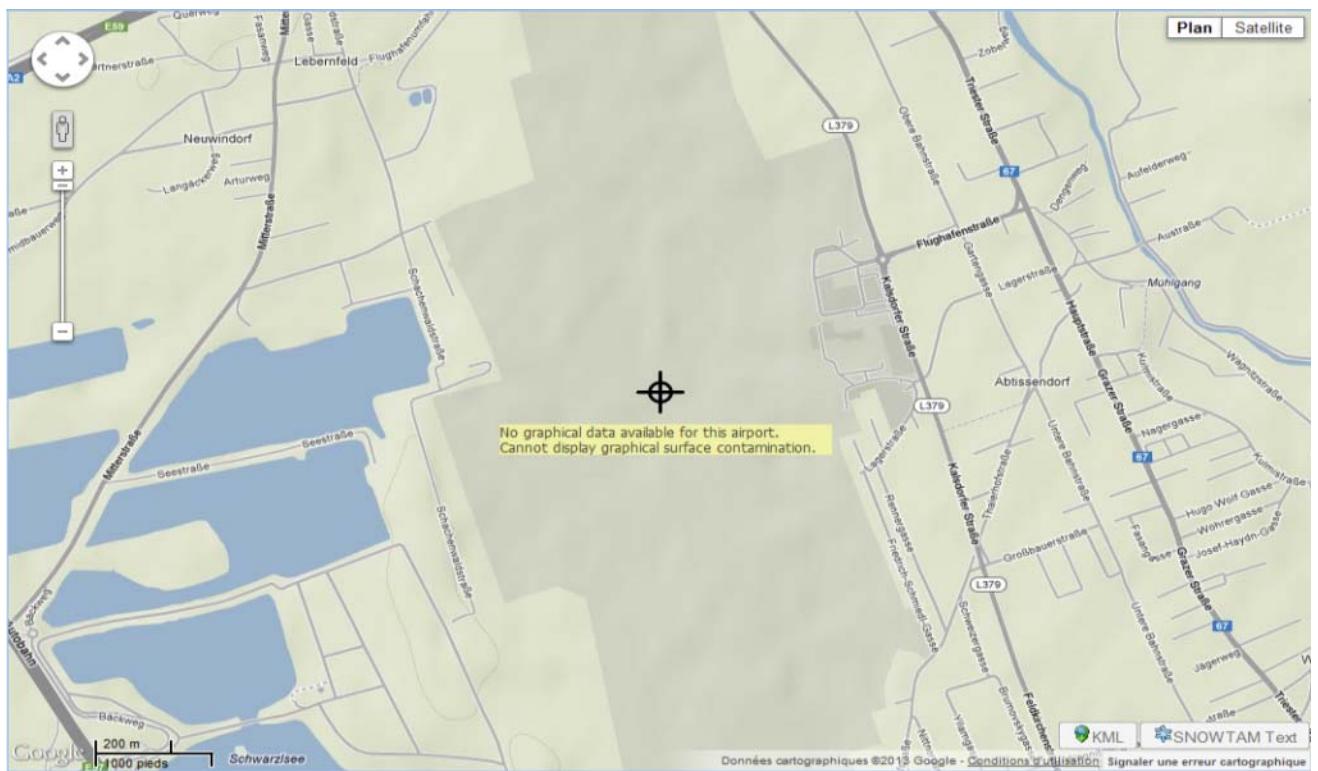
Airport features represented by a point (aircraft stands, thresholds...) are displayed using an icon depending on their type.

#### 4.1.1 Airport Reference Point

The airport reference point is displayed using the usual ICAO symbol:



The graphical visualization of SNOWTAM messages and contaminations relies heavily on features geometries. If no geometries are available, a warning shall be displayed under the reference point.

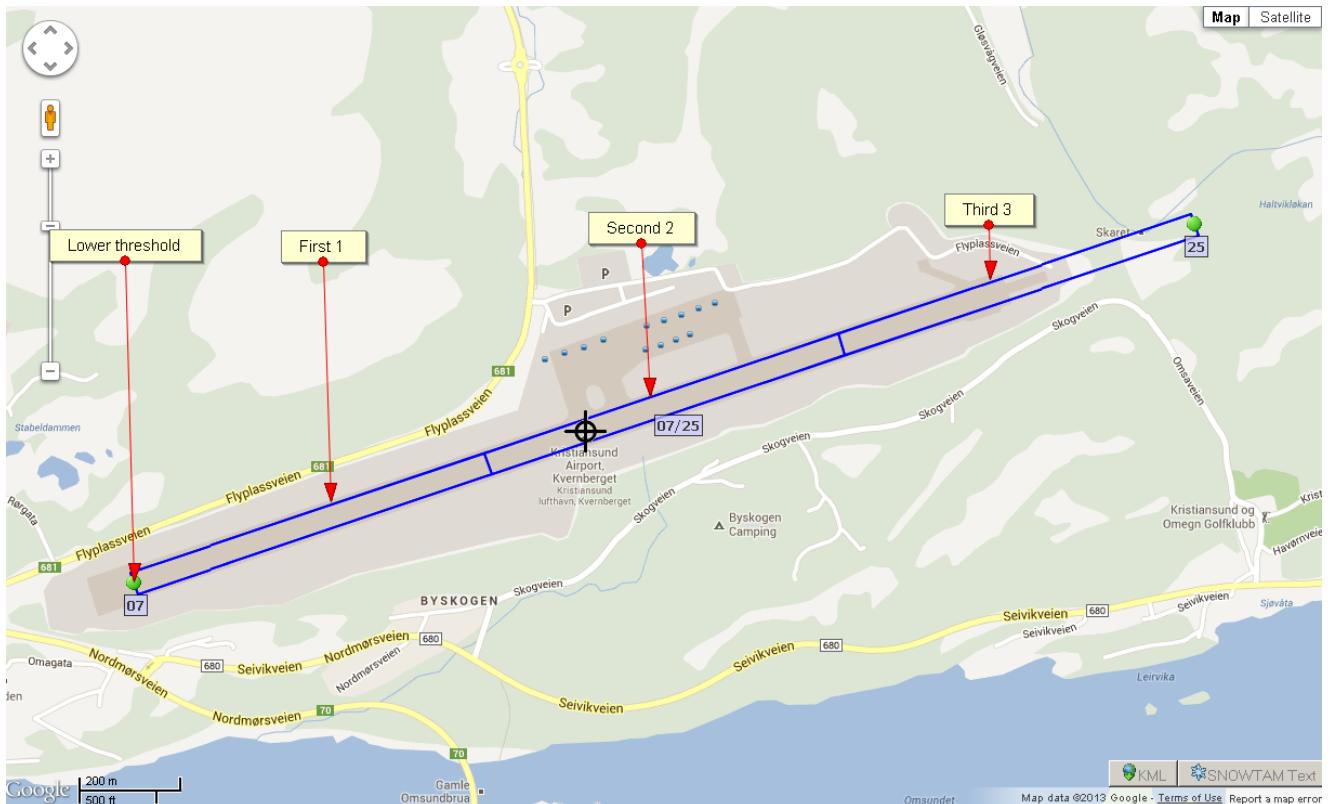


#### 4.1.2 Runways

Runways are displayed as outlined blue polygons.

In order to be compliant with ICAO Annex 15 – Appendix 2 and OPADD document for the encoding of contaminations and SNOWTAM messages, runways are divided into *thirds*.

The thirds are numbered from the lower runway designator / threshold:



When no AMDB data is available, runway geometries are computed by using the two threshold point's coordinates and the published runway width. So, at the very least, runway thresholds should be available in EAD to be able to visualize runways.

It may happen that, for some airports, the runway geometry doesn't match the picture of the runway on the map:



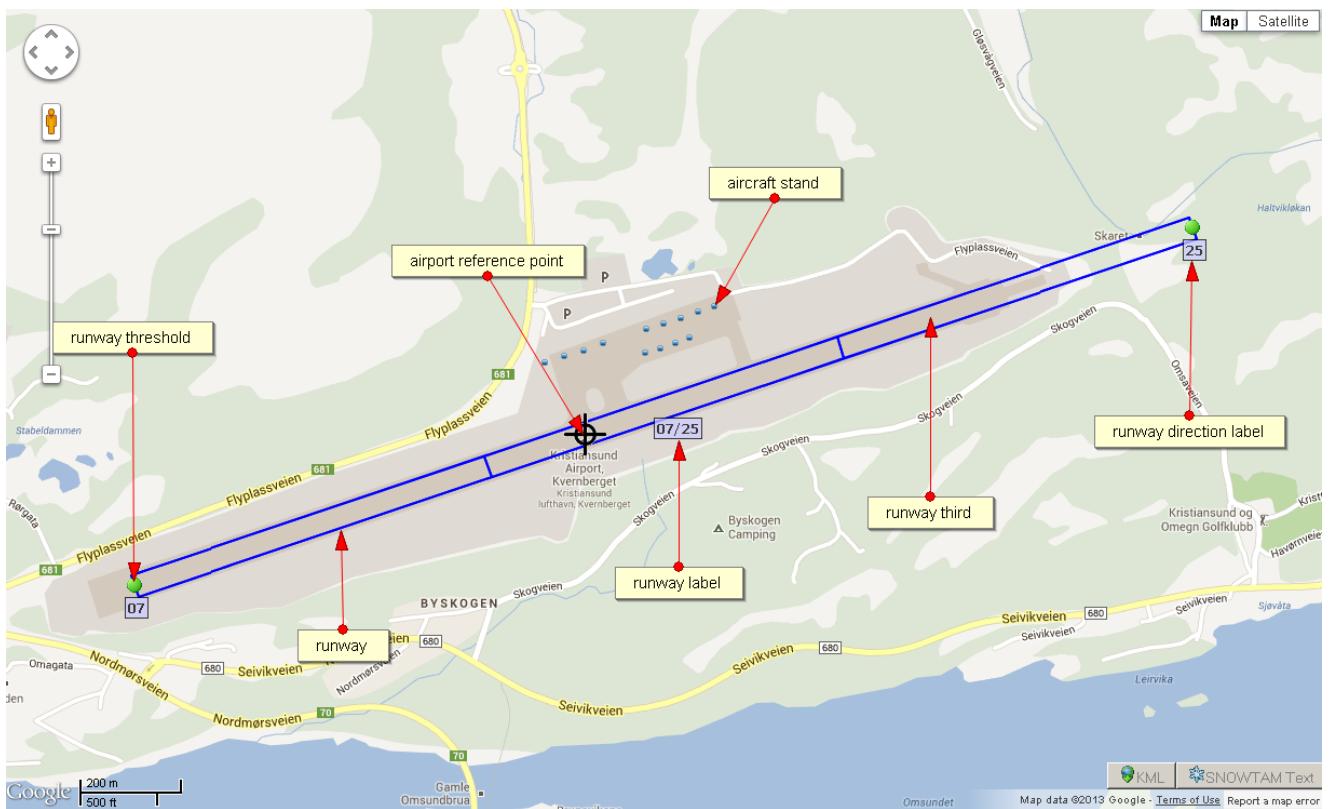
This may be due to:

- An incorrect Google Map image
- Wrong threshold coordinates or displaced thresholds
- An incorrect runway width in EAD
- No runway width (in which case a default value of 45 meters is used)
- No threshold and no AMDB data available (in which case the application can't display the runway)
- Maps of type 'Terrain' and 'Map' may be less precise than the satellite map (and thus the displayed picture may appear shifted)

If needed, the information can be corrected or completed in EAD and sent as an update, which the application will take into account automatically.

Here's a sample representation of a runway, displaying:

- The runway itself (the blue box)
- runway thirds
- runway thresholds
- runway label and threshold labels



#### 4.1.3 Taxiways

Taxiways are displayed as outlined blue polygons.

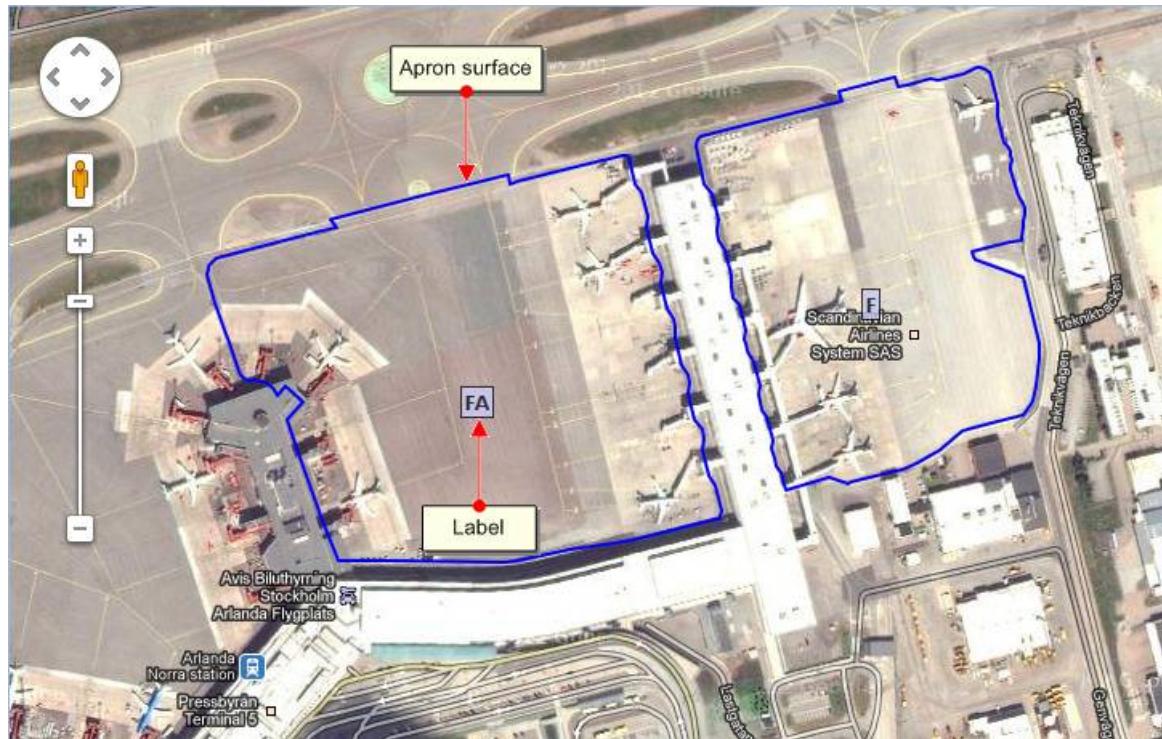
Here's a sample view of several taxiways on an airport:



Taxiway geometries are only available through AMDB data. If such data is available, send the AMDB file for the corresponding airport to EUROCONTROL in order to take advantage of this functionality.

#### 4.1.4 Aprons

Aprons are displayed as an outlined blue polygon.



Apron geometries are only available through AMDB data. [Send an AMDB file for the corresponding airport to EUROCONTROL in order to take advantage of this functionality.](#)

#### 4.1.5 Aircraft Stands

Aircraft stands are displayed as blue dot shaped icons.

Here's a sample representation of some aircraft stands.



In order to avoid overloading the map, aircraft stands labels are not displayed as other feature labels. The labels with the stand designator are displayed when the mouse moves over a stand.

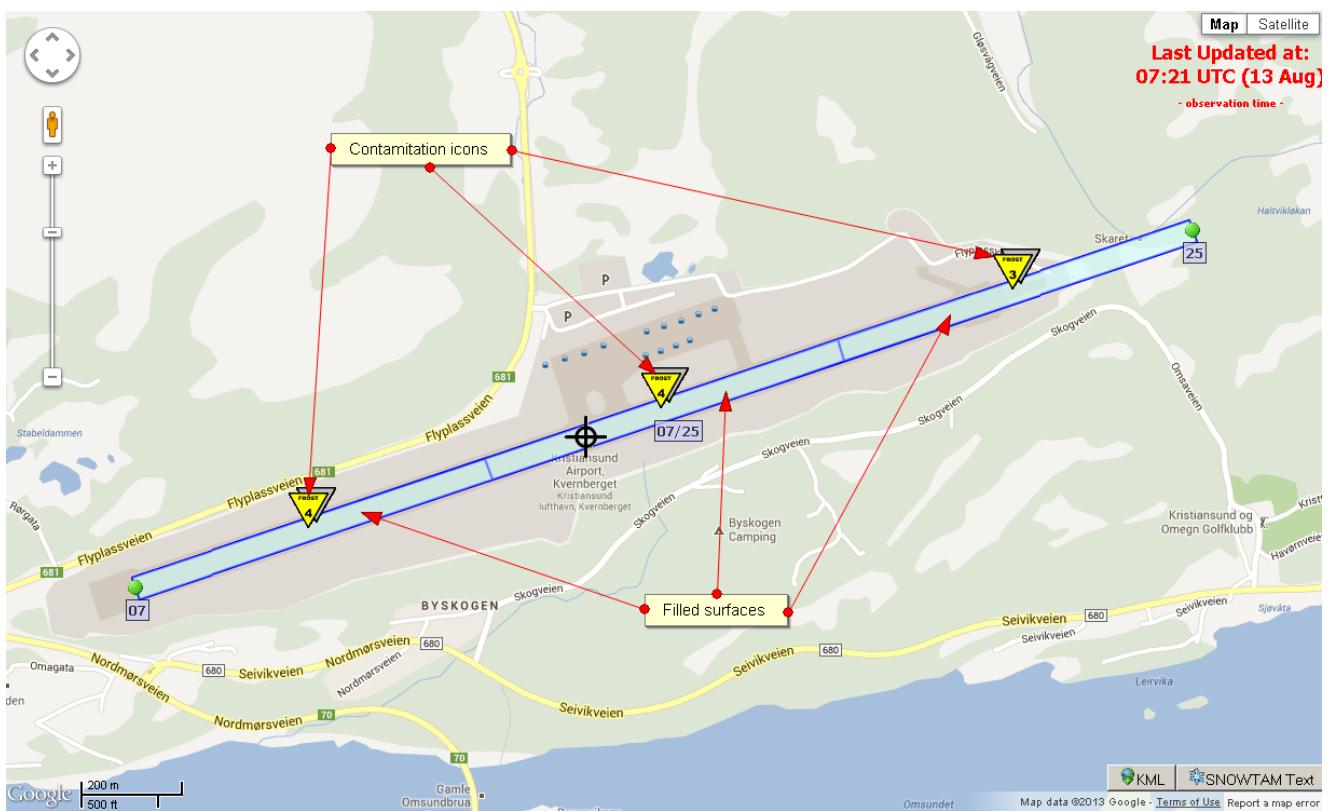
Aircraft stands are made available from EAD data.

## 4.2 Contaminations

---

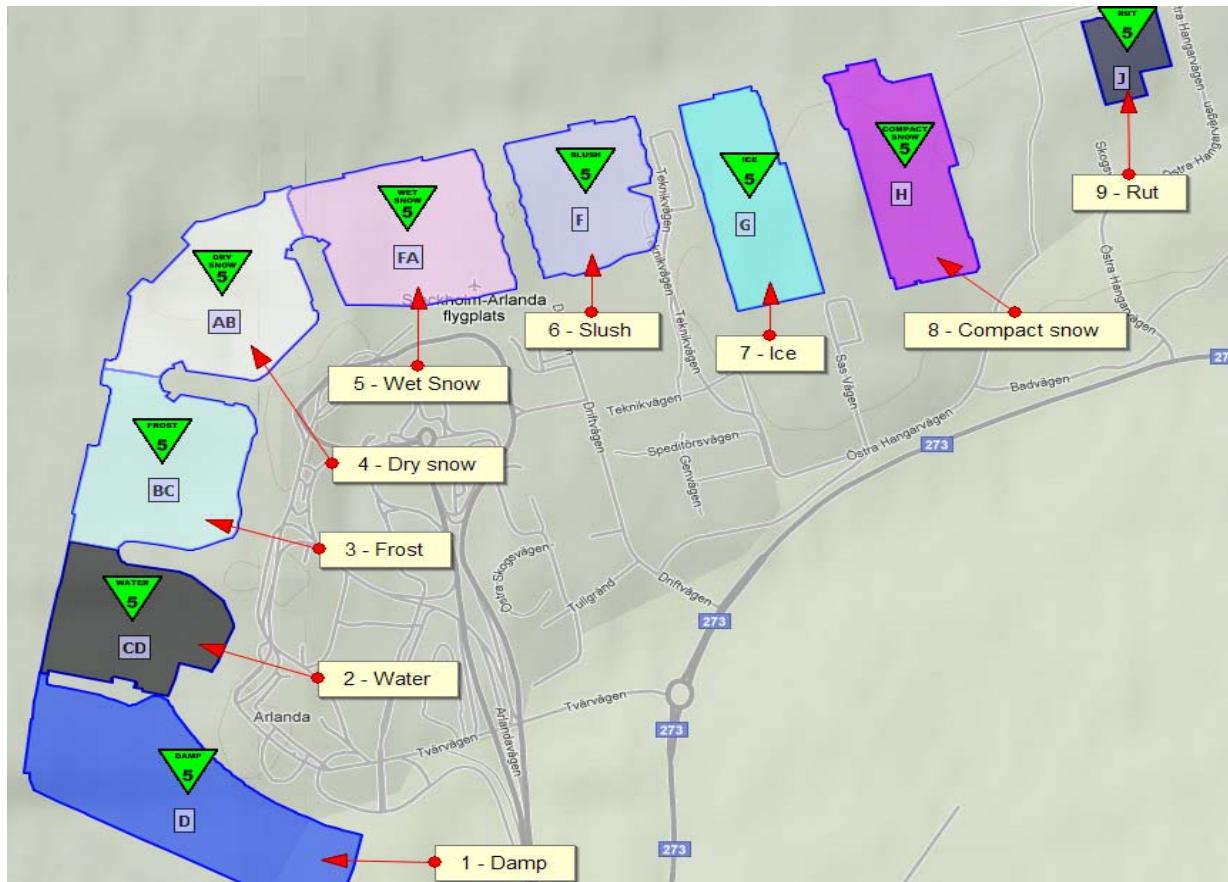
Feature contaminations are displayed in two ways:

1. The **surface** of the feature is filled with a colour corresponding to the contaminant of the upper layer
2. A color-coded and triangle shaped **icon** is placed on the feature, showing the most important information: the friction coefficient and the type of contaminant of the upper layer



#### 4.2.1 Contamination surface

When features are contaminated, their surface is filled using a semi-transparent colour which corresponds to the type of the upper most layer of contaminant:



While not displayed graphically, the other contaminants are still available in the view/edit dialogs in the application;

As an example, consider item F) of the following SNOWTAM message:

**A)LSZH B)09280852 C)10 F)27/5/9 H)1/3/3**

The 1<sup>st</sup> third of the runway is contaminated by water over ice (value 27); only the water layer is visible for this third.

#### **4.2.2 Contamination icon**

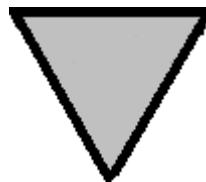
The contamination icon carries the most important information about the contamination of the corresponding feature:

- Single or multiple layers
- Type of contaminant of the top layer
- Friction coefficient (textual number and colour code)

It is meant to be a visual quick summary of the contamination.

##### **4.2.2.1 Single and multiple layers**

A single triangle is used when there is a single layer of contamination (one single contaminant):



**Figure 6 Single layer contamination icon**

When the contamination consists in multiple layers of contaminants, the icon is displayed as a double triangle.



**Figure 7 Multiple layer contamination icon**

**Important notice:** the number of triangles does NOT depict the number of layers.

##### **4.2.2.2 Type of contaminant**

The icon contains the denomination of the upper most contaminant (the top layer).

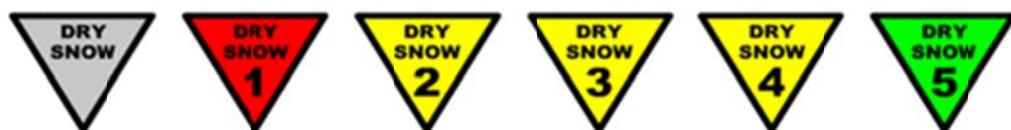


#### 4.2.2.3 Friction coefficient

The friction coefficient is displayed using the following two conventions:

A number (1-5)

A background color (red, yellow, green or gray)



The number always corresponds to the **estimated** friction coefficient.

The application uses the same conventions as the ICAO SNOWTAM form (except for the color):

Estimated friction	Color
GOOD	5
MEDIUM/GOOD	Yellow
MEDIUM	Yellow
MEDIUM/POOR	Yellow
POOR	Red

Grey color is used when no coefficient is available. However, this should not happen.  
 As an example, consider the following SNOWTAM message:

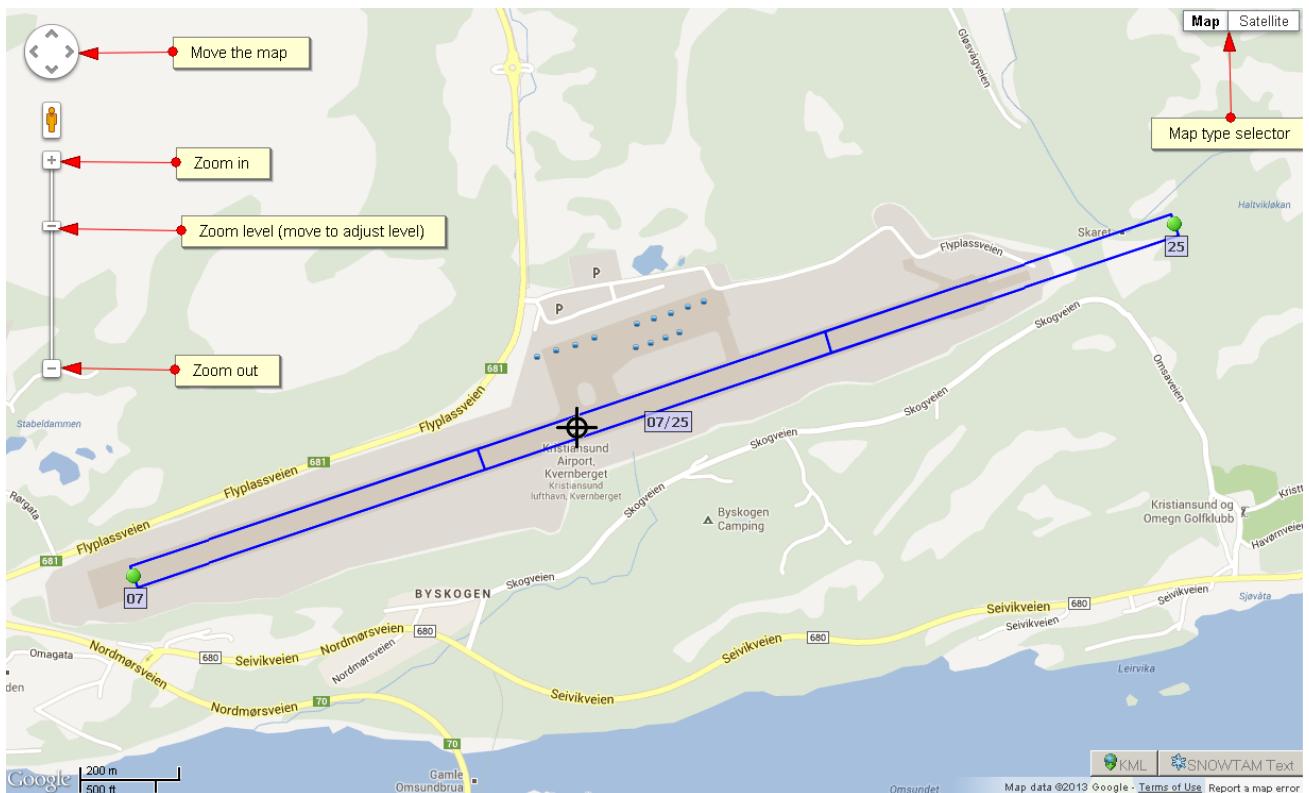
**A)ENAT B)10290728 C)11 F)67/1/1 G)4/0/0 H)3/5/5**

It will be displayed using the following icons:



## 5 Working with Google Maps

Here are a few condensed things to know about Google Map usage.



### 5.1 Moving the map

The map can be moved:

- By using the map control on the left (as explained in the screenshot)
- By using drag & drop (click on the map, keep the mouse button down and move the cursor to move the map).
- By using the arrows, [Page Up], [Page Down], [Home] and [Insert] keys on the keyboard

The map can also be centred on a specific place by double-clicking on the corresponding point on the map.

**Note:** In the Airport Map Page, the map can be centered on a feature by clicking on the corresponding feature in the textual feature list (provided that a geometry is available for that feature).

## **5.2 Zooming the map**

---

The map can be zoomed in and out:

- By using the map control on the left (as explained in the screenshot)
- By using the mouse wheel (if your mouse has one)
- Use the [Insert] key to zoom out

A double-click anywhere on the map will centre it on the clicked point.

## **5.3 Choosing a map type**

---

Choosing a map type is as easy as clicking on the select type in the upper-right corner of the map.

As map types add a real value to this application, they are further explained in chapter “3.5.4 Visualization Options” on page 24.

The application has the capability to retain the selected map type for next time the map is displayed.